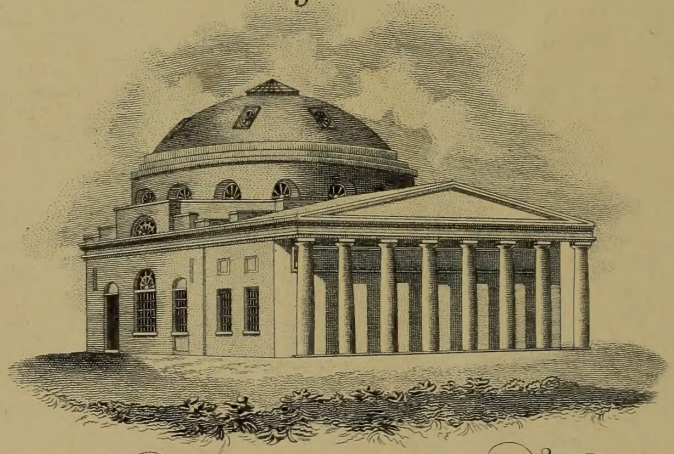
Rebound:

SEP 25 1949

LIBRARY
OF THE
School of Medicine



University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

These dissertations were digitized in 2011-2012 and are available at the UM Digital Archive (archive.hshsl.umaryland.edu) and the Internet Archive (www.archive.org).

(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1849 (b)

Author	Title
Hysham, William Edward	Epidemic Cholera
Glisan, Rodney	Yellow Fever
Hendrix, Joseph W.	Duties of the Physician
Hance, Thomas C.	Acute Gastritis
Baldwin, Julius A.	Diseases of the Liver
Read, James B.	Report of Three Cases
Dusenbery, E. L.	Cholera
Carter, Walter K.	General Dropsy
Spencer, Frances	Scarlatina
White, William	Scarlatina
Nelson, Louis F.	Pneumonia
Jenkins, Felix	Acute Pleurisy
Billingsley, John A. T.	Hydrocephalus
Chamberlaine, Joseph E. M.	Report of Four Cases
Bett, William Seton	Phthisis Pulmonalis

HSHSL 2011 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1849 (b)

Hysham, Edward ~~H.~~ William	Epidemic Cholera	62p.
Glisan, Rodney	Yellow Fever	123p.
~~Hendrik,~~ Hendrix, Joseph W.	Duties of the Physician	21p.
Hance, Thomas C.	~~Gastritis~~ Acute Gastritis	26p.
Baldwin, Julius ~~H.~~ A.	Diseases of the Liver	39p.
Read, James B.	Report of Three Cases	24p.
~~Dusenberg~~ Dusenbery, E. L.	Cholera	10p.
Carter, Walter K.	General Dropsy	66p.
Spencer, Frances	Scarlatina	17p.
White, William	Scarlatina	37p.
Nelson, Louis F.	Pneumonia	19p.
Jenkins, Felix	Acute Pleurisy	21p.
Billingsley, John A. T.	Hydrocephalus	10p.
Chamberlaine, Joseph E. M.	Report of Four Cases	17p.
Bett, ~~Wm.~~ William Seton	Phthisis Pulmonalis	28p.

34

UNIVERSITY OF MARYLAND
LIBRARY
Founded 1813
SCHOOL OF MEDICINE

528
P138

An
Inaugural Dissertation
on
Epidemic Cholera.
Submitted to the Examination
of the
Provost, Regents and Faculty of Physic
of the
University of Maryland,
for the
Degree of Doctor of Medicine
by
W. Edward Nysham.
of Maryland.

February 1849.-

IMD
18894

UNIVERSITY OF MARYLAND
LIBRARY
Founded 1813
SCHOOL OF MEDICINE

Contents

Page

I History & Progress 4

II Symptoms & Course 16

III The Blood 23

IV Anatomical Lesions 27

V Causes 33

VI Nature 39

VII Prognosis 41

VIII Prophylactic or Sanitary Measures 44

IX Treatment 48

To

Wm. Powers M.D.

Prof. of the Theory and Practice of Medicine

in the

University of Maryland

and to

Charles Frick M.D.

one of my preceptors in Md. Med. Institute

the following pages

are respectfully inscribed

Epidemic Cholera

History and Progress

This fearful and much dreaded pestilence of mankind made its first appearance in India, where it seemed to have been indigenous, and attracted the particular attention of the Medical Profession in the beginning of August 1817 – in Jilla Jassore, a small Town about 100 Miles North East of Calcutta from whence it soon spread to the adjacent Villages, and extended itself in various directions through the Country of Bengal, where it continued for several Months raging with violence, from January till the

End of May 1818 - the deaths during this period averaging about 200 a week, on the 6th of August it appeared in Bombay, having consumed one year in traversing the Indian delta from Calcutta, - tarrying at each Town from two to six weeks and advancing 18 or 20 miles per day. The various facilitaies of the Epidemic had by this time been pretty well developed, its manner of invasions and attack, being often singularly capricious, "Sometimes, (says the report of the Calcutta Medical board) the disease would make a complete circle around a Village, and leaving it untouched pass on as if it were, wholly to depart from the district then after a lapse of weeks or even months, would suddenly return and

scarcely reappearing in the parts which had already undergone its ravages would nearly depopulate the spot that had so recently congratulated itself on its escape, sometimes after running a long course on one side of the Ganges, it would as if arrested by some unknown agent at once stop and taking a rapid sweep across the river lay all waste on the opposite bank. In the year 1819 - it took a much wider range than heretofore encircling the Islands of the Indian Ocean, it also at this time invaded Siam and the adjacent regions, great numbers of the inhabitants perishing. In the year 1820 - it appeared in China, putting on a terrible form at Canton, and plaiged heavy with the Inhabitants

of Pekin. In 1822, - it reappeared in Java destroying nearly 100,000 persons, in its Northern progress, the Epidemic reached Liberia in the year 1826. In 1821, - it invaded Arabia, when it seemed to put on a peculiarly malignant type, death sometimes following a few moments after attack, the victims numbered 60,000. - Seeming rather to prefer the course of Large Streams the Epidemic pursued its course up the Tygris to Bagdad - reaching Aleppo in 1822. - In the Persian empire few places of note escaped its ravages. In September 1828 it invaded the Russian City of Astracan, and at this its point of approach to Europe, the Cholera made a pause of several years, it however lingered in the Persian Empire, where

where it recovered its original force in 1829, - and in the following year continued to spread, through various provinces, around the Caspian Sea, - while yet raging in the Persian Provinces, - it reappeared at Astracan at the mouth of the Volga, after an absence of seven years, - It was supposed that up to the year 1830, - 6,000,000 of persons had perished of Epidemic Cholera in Asia, - It continued its course along the banks of the Volga and spread over the greater part of Russia in Europe, and after following the Don, Dnieper and other Rivers, arrived in the City of Moscow in Sept. 1830, - in June, it entered St. Petersburg, where it committed fearful ravages, from this place the Cholera

passed over most of the Countries of Northern and Central Europe. Since the year 1830. this Epidemic has traversed Europe in a line, inclining to a Northwesterly course, and in spite of Quarantine regulations, and the utmost vigilance, has devastated all nations, lying in its route; has found its way to England, and France, and at length reached the shores, of the American Continent.

I have thus given in a brief outline, (from the best Authority) a view of the march of this fearful Malady, through Asia and Europe, - and will next proceed with its History, after reaching our own Shores.

The Month of June 1832. - will long be remembered, as the

first appearance of Epidemic Cholera on the Shore of North America. - appearing almost simultaneously at Quebec and Montreal in Canada. The first case was an emigrant who landed from a Steamboat, which plied between Montreal and Quebec - and the first place, which it seemed to manifest itself in Quebec, was at a boarding house, in a low, filthy, and ill ventilated part of the Town, from which the disease shortly spread, and played havoc, both in that place and Montreal, It next followed, the course of the St Lawrence, attacking the large Towns, situated on it. - This Epidemic, was often remarkably singular, in its course and invasion, its march being sometimes very

irregular, invading Cities, and places, at distances from each other, and not affecting intervening spots, until after a subsequent period, thus the first case reported, in New-York occured on 1st July, some days before its appearance at Albany, about 150 miles near Montreal.

In New-York city, it appears that the board of health, first officially recognised the Asiatic Cholera, on the 4th July, though some sporadic cases, had occured as early as the 29th of June, At Philadelphia, the next place of its attack, it was recognised, as Asiatic Cholera by the Medical Proffession, on the 16th of July, but the greater number of cases, seemed to appear about the 1st part of August. At Baltimore, its visitations

occured, on the 22d of August, and lasted until about 24th September the number of deaths being stated at 700.- At Washington its appearance was noted on the 28th August, it remained until Sept 24th number of deaths about 177- It also visited Norfolk, Cincinnati, and New Orleans, making great ravages particularly among the slave population, who generally fell ready victims to its violence.

The Eastern States almost entirely escaped, the visitation, of Epidemic Cholera, only a few Sporadic Cases, occuring now and then, but they are generally pronounced as having been exempt from the true Cholera. About the same time the disease, was raging in New

Orleans, it also appeared at Havanna, being very severe, on the Slaves, carrying off immence numbers.

I have now (with the assistance of numerous writers) endeavoured to trace out the correct History, and progress of Epidemic Cholera, from its first prevalence in Asia in the year 1817 - until the appearance of its ravages in the United States, in 1832. - There were partial returns of the disease in 1834. - but not in so violent a form, as in its Previous Visit. - We learn that within the last few years, this Epidemic has made a second tour through Asia and Europe, taking pretty much the same track with a few exceptions, as in its former March, and we have every reason

to suspect that we will not escape its ravages, for (as I am writing this) we see reported in the newspapers, that, cases have occured at New York, and also that numbers are perishing daily of the disease in New-Orleans.

From all, at present, known of Epidemic Cholera, one cannot help but deciding it to be an extremely singular and irregular disease, both in relation to time and direction, generally its progress seemed to be arrested during the winter to reappear in the Spring, but at Moscow it prevailed during most of the winter of 1830-31, though generally preferring to follow the course of streams, and navigation and confined in general to low

marshy and filthy districts, and crowded Cities, yet it has appeared on the tops of Mountains, in Sandy deserts, and even among the inhabitants of thinly populated districts; it appeared in general to have no vicious particular class of individuals, for its attack - the old and young the robust, the feeble, the rich and poor, male and female, all seemed alike to suffer, and those who even had once experienced the disease, were not exempt from its attack a second time. - but, as we shall see, hereafter it generally selected those for its victims, whose vital energies were much depressed below the natural standard, from previous exciting causes, which

I will enumerate in their proper places and order.

Symptoms & Course

This disease seems to consist of two forms, the mild or Cholerine (of French writers) and the true or Malignant Cholera. – In Cholerine, there is a general feeling of malaise some depression of the nervous energy impaired digestion – diarrhoea, vomiting, sometimes a bilious matter &c – but this affection, if acted upon by any exciting cause, might be converted into a case of true Asiatic Cholera.

In describing the symptoms and course of Epidemic Cholera, there seems to have been very little discrepancies of Opinion

existing, among those who have written on the subject, and who are conversant with the disease.

The term Cholera (from two Greek words χόλη - Bile - and ῥέω. to flow) I think is inappropriately applied in this disease, as we have seen from its derivation, that it signifies a flow of bile, or morbid biliary secretion, whereas in the disease in question, an appearance of bile in the ejections is hailed, as a favourable sign.

This Epidemic is generally ushered in with a general derangement of the Stomach and bowels - there is vomiting and purging first of the ordinary contents of the alementary Canal and afterwards a thin colourless fluid, having the appearance of

Rice Water, which is ejected in great quantities, these evacuations are followed by remarkable constitutional disturbance, a feeling of general indisposition, these are strong evidences of disease in the countenance which can easily be detected by the eye of a skilful Physician, although the patient will not always, acknowledge himself sick, having only the symptoms, sometimes of an ordinary disease. There is most commonly, a sense of deafness, with giddiness and even Vertigo. Some writers have observed in the Countenance a manifest degree of anxiety, although not expressed by the patient, and they assert that it is always found among the precursory

symptoms but as an opportunity is not always afforded of detecting this, it is rather difficult to decide as the largest number of persons are generally attacked, in the night, and seldom seen by a Physician, in the first stage of the disease, - a great loomess of spirit and despondency of mind are often observed, before the disease has really commenced.

It is a well known, fact, (say those who have seen the disease) that immediately after the first evacuation, there is a sudden prostration of the powers of life, - there is blueness and lividity of the hands and face, and in fact of the whole surface of the body, Cramps in the legs and recti muscles

of abdomen, sometimes the muscles become contracted into hard knots, the fingers and toes present a shriveled appearance, looking as if they had been parboiled, the action of the heart is very feeble and the countenance becomes cadaverous (there is now a bordering on Collapse) Skin and respiration cold and clammy, the breath cold, the tongue pale and cold, having the appearance of skin, there is a burning thirst, the Cornea looks wrinkled and dead, Cramps and Spasmodic affections ensue in the limbs and trunk attended by violent pain, causing the most resolute to cry out, and roll about as if frantic, there is a great deal of suffering about

praecordial region, which is no doubt connected with the failure of the functions of the heart. Which is a pathognomonic sign in Cholera. The urine in this disease is scanty and there sometimes exudes from the body, a cold and clammy perspiration, the respiration at length becomes affected, and the pulsations of the heart, can scarcely be detected, pulse being entirely lost, the countenance exhibits all the appearances of death. This is called the stage of Collapse, and generally in 5 or 6 hours, from this the patient is hurried to the grave.

These latter symptoms, constitute the severer types of the disease, but there are numerous instances given (by Authors) where there was "neither vomiting, purging

nor Cramps, and yet they hurried rapidly to a fatal issue".

The disease (appears from all accounts), to have been more fatal in India, than in any other part of the world, destroying life very often in one or two hours, sometimes relief is obtained within thirty six hours, and takes place rapidly, but then again convalescence is exceedingly slow, the vital powers having been very much reduced by the violence of the disease.

It has been noticed both in this Country and in Europe, that the Epidemic often takes on a Typhoid character, which frequently proves fatal.

We find on enquiring that the leading Symptoms in Epidemic Cholera, seem to be identical in whatever part of the world it has appeared, but by referring to writers

on the subject, who witnessed the malady in India, we perceive the symptoms, to have been rather more malignant in character, than they appeared in the Epidemic either in Europe or America.

The Blood

It is now pretty well known, that the serum, of the blood, is greatly diminished, in Epidemic Cholera, and the crassamentum increased, as will be seen from the following analysis of Dr. Thompson's.

"In Healthy Blood

Serum	55.00
Crassamentum	45.00
	100.00

Cholera Blood

Serum	32.34
Crassamentum	67.66
	100.00

Dr. Stevens, – appears to consider the saline portions of the

Blood, as by far the most essential ingredient, to its healthy state, and he also says that, "when this saline impregnation is lost or greatly diminished (as is the case in Cholera) that the blood becomes black, or goes fast to decay, a change which is soon followed by death," and still farther insists that by adding any of the neutral salts to this blood, after it has been taken from the body, that the red colour will be immediately restored. This Phenomena can I think be very easily explained by the salts containing a large quantity of Oxygen, which on being added to the blood has the effect of Oxygenating it and of consequently restoring the red Colour.

Dr. O'Shaughnessy found that the blood (in Cholera patients)

contained a considerable quantity of Urea, - 3.66 parts being discovered in 1,000 parts of blood. This appears to be accounted for, by the diminished secretion of Urine, by which this principle is naturally carried off from the circulation.

There are also some (Writers) who hold the doctrine of Hyper-carbonation, asserting that, the blood, takes its dark colour, from holding in mixture, a superabundance, of Carbon, - and that patients who die of Cholera, are poisoned, by the circulation, of this blood through the brain, and that this particular, State of the circulation, is the cause and nature of the disease but, this Hypothesis, is rather unsatisfactory, as we have no just grounds for believing it. Dr. O'Shaughnessy

has come to the following conclusions from his experiments on the blood (in Cholera patients).

First; 'That the blood drawn in the worst cases of Cholera, is unchanged in its anatomical or Globular structure.'

Second; 'It has lost a large proportion of its water, 1000 parts of Cholera serum having but the average of 860 parts of water.'

Third; 'It has lost also a great proportion of its neutral saline ingredients.'

Fourth; 'Of the free alkali contained in healthy serum, not a particle is present in some Cholera cases and only a trace in others.'

Fifth; 'Urea exists in cases where suppression of Urine, has been a marked symptom.'

Sixth; 'All the salts deficient

in the Blood, (especially the Carb Soda) are present in large quantities in the peculiar white ejected matter.'

These I believe are the principle changes, which the blood undergoes in Epidemic Cholera.

Anatomical Lesions

The body being quite cold before, becomes warm after death, and in some cases, the warmth was observed to have continued until cadaveric rigidity, began, There was often noticed, Spasmodic contractions of the muscles, the corpse throwing out the arms, or legs, and sometimes even setting up after being laid out, which to the unsuspicious and ignorant, was rather a

terrific sight! the countenance exhibits a haggard expression, as if the patient, had died in the greatest agony, and some writers (say) that he looks as if he finished after a violent struggle or in some mortal combat.

The internal changes seemed to have been pretty much the same in all cases and in every Country

A general venous congestion being the principle pathological lesion, the mucous membrane of the intestines more particularly, the glands of Brunner and Peyer were found morbidly enlarged, and somewhat changed in structure.

(Prof. Horner, whose account of the Pathological changes, seems

to be very satisfactory, advances the following propositions,

First; "That the vascular derangements, and phenomena of Cholera, as exhibited in the Alimentary Canal, are confined almost exclusively if not entirely to the venous system."

Second; "That in the earliest stages, a lining membrane of coagulating lymph exists in the small intestines at least, if not in the Stomach and colon also, and that this lining resembles the membrane of Croup."

Third; "That in addition to the enlarged and Tumefied follicles, described by M. Bouillaud and a similar enlargement of the intestinal papillae described by M. Serres, a corresponding

eruption entirely distinct from both, and easily distinguished from them, exists in the mucous membrane of the stomach, of the small intestines and of the large, and that this vesicular eruption consisting of small spheres, seldom more than the sixth part of an inch in diameter, is probably the essential morbid character of the disease as is the case in the eruption of small Pox and other affections."

Fourth; "That the follicular system of the alementary canal is not the principle fountains, of the sero fibrous discharges, commonly called the Cholera fluid but that the latter comes from the capillaris of the venous system."

(These observations, seem to

coincide very closely with those of Dr. Copland of England.)

There is very little blood, found in the arterial system, with the exception of a few clots in the Aorta, and right side of heart, but the venous system is engorged, with a dark viscid, blood resembling tar in fact almost all parts of the body exhibited signs of venous injection.

The liver and lungs and the vessels of the brain and spinal marrow, have been found more or less in this same injected state, but in point of fact, with the exception of a distended gall bladder, and an empty shrunk condition, of the urinary bladder, (which have been constantly observed) no morbid appearance whatever

has been discovered, but what might be fairly anticipated as necessarily arising from the arrest of the circulation during life, and altered condition of the blood which has been already noticed.

Some writers, have found the intestines contracted so as scarcely to admit the finger, and sometimes inflamed or intersusceptest, while others have discovered the stomach, liver, and lungs very frequently inflamed.

From the work of Dr Good, we learn that in his examinations made at Bengal, the stomach and intestines contained a quantity of gelatinous substance, the liver was considerably enlarged from the quantity of blood which filled its vessels, the gall bladder

distended with black bile the bladder was empty and contracted behind the pubes, and the Kidneys seemed smaller than natural.

There have been, a great many more changes, noticed by different writers, but as they appear unsatisfactory and contradictory, I deem it scarcely necessary, to mention them, as it will only tend to lengthen my essay.

Causes

Of the efficient cause of Cholera, we are entirely ignorant, and any attempt, made to inquire into it, would not (very likely be attended with success, Neither can the science, of Chemistry, nor any other known process, determine its properties, That it is an

invisible mysterious poison, in the atmosphere, we have every reason to suspect, but with which (as I have before said) we are entirely unacquainted, and perhaps ever will remain so, till the end of Time.

However a great many Hypothesis have been held out respecting it, one in particular (which at first sight might appear to be somewhat feasible) is that of an Italian Physician Dr Mojon, who visited Paris during the Epidemic, for the purpose of investigating the nature and character of the Epidemic disease; His doctrine was that of "Animalculae" which he affirms, fills the Cholera atmosphere.

This theory I think is rather absurd, particularly as it never has been proved, and as Dr Wood

remarks "the cause of Cholera, whatever it may have been, withstood the severity of the Winter at Moscow, which one would suppose must be fatal to unprotected animal life.

There have been a great number of other theories advanced, pertaining, to the causes of this disease but as none of them appear conclusive or satisfactory to me, I deem it scarcely worth while to mention them.

The common causes may be divided into the Predisposing and exciting, but neither of these, nor both combined (say most writers) are capable of producing the disease. The Epidemic influence appearing to be perfectly unaided in a large number of cases, in the production of Cholera

The predisposing causes may

be defined, to be, those in which, there is a peculiar idiosyncracy, or susceptability, of the system, for receiving, the Epidemic influence, while the exciting, are those which cause the disease, to be hastened whereby had these last named causes not existed, the Epidemic influence would probably not have been called into action.

The Predisposing, causes may be divided, into the natural and acquired, - In the natural, there is a peculiar, idiosyncracy, of the individual, for instance one of considerable nervous susceptibility, or who may have been, very subject, to discharges, a peculiar laxness or from very slight causes, or in fact any of the depressing emotions, such as fear &c. The acquired, are those

where there has been some agent acting, to debilitate the moral or physical health, particularly where the digestive apparatus has been impaired. The exciting causes of Epidemic Cholera, are so very numerous, that to mention all of them, would take a large amount of time and space, Therefore I will notice a few of the most prominent.

We are all aware, that wherever Cholera has appeared in our large Cities, the first and principal portion of the community, who have, been the sufferers, are those of the lower classes, who live in the most abject state of poverty, in filthy and illventilated portions of the town, their vital energies being much depressed

by insufficient food, and that of an inferior quality, bad clothing, dampness, great fatigue, filth, sudden exposure, to cold &c, those of intemperate habits, and in fact all persons whose vital powers are depressed, below the natural standard of health, are more or less subject to the influence of the Epidemic.

The time which has been stated, as requisite for the disease, to appear after exposure to the Epidemic influence, is not known, it has (say some writers) appeared in persons who had only remained in the infected district for a few hours.

As to the contagiousness of the disease, I shall have very little to say; that its now contagiousness

has been satisfactorily proven is beyond doubt, and I could site numerous facts noticed by respectable Physicians which should settle every mind, but it would employ more space than I can here afford, still it has not been without its advocates, of Contagion, who have adduced some strong arguments in regard to it, but I think the non-contagionists have put forth the strongest facts and conclusions, Therefore I should certainly coincide with them.

Nature

There is existing such a wide differance of Opinions respecting the nature of Epidemic Cholera, that I am at a loss which doctrine to uphold, by

some (writers) it is asserted, that there is an inflamation of the whole alimentary canal, while others do not, find a single trace of an inflamatory Condition, some again believe the whole nervous system to be in a deranged state, especially that of the ganglionic system, But it seems to be almost universally acknowledged that there is a certain degree of irritation existing in Cholera; because how is the great gastric derangement, to be accounted for, what is the cause of the vomiting and Diarrhoea, and numerous other symptoms, which could be produced in no other manner but by irritation or inflamation.

Prognosis

In forming a prognosis in this disease, there are a number of circumstances, which must be taken into consideration; The age of the patient, his previous habits, and state of health, his former occupation, and general constitution. In the old and debilitated, the case may be almost considered as hopeless, but in youth and a vigorous constitution, the timely use of efficient remedies, may often be attended with complete success.

In the stage of Cholerine, the disease properly treated has almost always been arrested, but after the formation of the true Cholera, if the patient was not seen by a Physician before the stage of-

collapse came on, the prognosis was considered as extremely grave.

From examining the different reports of mortality by Cholera, (during its prevalence in the United States in 1832) we find that about one half of those attacked died, but as this was principally among a destitute class of persons, who probably did not receive timely Medical aid, and the disease generally run on until there was no possible chance of recovery, the above report can scarcely be taken as a just criterion for judging the exact fatality of the disease.

Dr Wood, says, "That from the result of his observations of the Cholera in Philadelphia the proportion of recoveries even from, well

marked cases, was vastly greater than the ratio, which is above given. At the commencement of the Epidemic the fatality was much greater, than in the continuance and decline, even when collapse has taken place if there is a return of the natural warmth, of the body, if the pulse commences to rise, and the secretions of bile and urine to reappear, the other symptoms may in a great measure be obviated, and we have strong hopes of the recovery of the patient, but it is necessary, always to be extremely guarded in our prognosis, in this disease, as the patient may seem to be improving rapidly, to all appearances, when from a sudden failure of the powers of nature, a relapse may take place, from which he

will almost certainly never recover, the greatest danger seems to arise from impaired or suspended, circulation, hence where there still continues, that shriveled, dead appearance of the cornea, a stagnation of blood in the Capillaries, as is seen by the want of any change of colour, in the lips and gums, upon pressure we may be well assured of approaching dissolution.

Prophylactic
or
Sanitory Measures

After having studied the principle causes of Cholera, the means of preventing an attack, readily suggests itself to our mind, without again enumerating

these causes; we have seen that any thing liable to depress the vital energies, has always tended to the production of the disease, then our first indication will be the prevention or removal of all such agents as would likely lead to this result, therefore all filth and dirt should be abstracted from the premises, situations in which the air is foul or moist should be strictly avoided, great regard should be paid to personal cleanliness, by frequent ablutions &c, the clothing should be warm, and flannel worn next to the skin, the feet particularly should be kept warm and dry. But habits of temperance are of paramount importance in warding off an attack of Cholera, more excesses

in eating or drinking, should be indulged in, All crowded assemblies should be strictly avoided, also late hours damp night air, excessive mental or physical employment, The sleeping apartment must not be neglected, the room should be well ventilated, the beds free from dampness &c.

Some Physicians recommend, the exclusion of the use of Tobacco, particularly in the form of Chewing, asserting this weed to be an efficient cause for the impairment of the vital energies; In fine the bowels should be kept open and regular, if constipated, make use of a gentle aperient or laxative, Rhubarb being one of the best, if too lax may use some gentle astringent, Cane

must be taken that no medicine be administered without proper medical advice, All nostrums and pretended specifics of Quacks should be strictly avoided, And I have no doubt, that it would much benifit the community (during the prevalence of Cholera) if the Authorities, would forbid Apothecaries, making up or vending (without Medical prescription) all such specifics or nostrums.

This restriction was carried into effect at Montreal, it is said with considerable benifit.

The Medical Chirurgical Faculty of Maryland, have issued a report (on the Prophylaxis in regard to Cholera) well worthy of a perusal, and I would refer you to that article for a full and correct view. —

Treatment

To state a specific mode of treatment in Epidemic Cholera, would be entirely out of our power, for most of the remedies in the long Catalogue of the Materia Medica have been resorted to, and a few only of these with even partial success, and this to in a disease which has made its appearance on all parts of the globe, giving to the Medical Profession of the whole world at large an opportunity for putting into practice their different views of treatment, but among whom as might naturally be supposed a vast difference of opinion has existed.

It would appear from all the reports of Mortality by Cholera,

that the proportion of deaths has been the same in whatever manner the patients have been treated.

As a disease to combat, it appears most difficult, for remedies suggested and recommended by some practitioners seem in the hands of others to have been even more than useless, but it is the duty of the Medical Profession, to try all the means which have been at all beneficial in relieving the community of so terrible a malady.

Our treatment then should be directed principally to the various Pathological conditions, which the disease presents, in its various forms and stages.

Therefore the indications which we hold in view, would seem to be, the corrections of certain

disturbed functions of the economy.
First; To allay the irritations and arrest the excessive discharges, from the stomach and bowels.
Second; To excite the suspended circulation, and restore animal heat.
Third; To arouse the prostration of the nervous system, and support the exhausted strength.
Fourth; To restore the suppressed secretions, and obtain healthy evacuations from the bowels.
Fifth; and last, indication would be to moderate reaction, obviate congestions and organic inflammation.

The first indication of treatment would apply to the Premonitory stage or (Choleine). The succeeding ones relate to the further

advanced stages of the disease.

The precursory symptoms of Epidemic Cholera (or what has been frequently denominated Cholerine) appear to be exceedingly intractable to treatment; Nausea, vomiting and retching may be obviated by the administration of some mild emetic, (for instance) a small dose of Ipecacuanha or a mixture of warm salt and water, which means will almost inevitably remove the irritating substances from the Stomach and relieve the pain. We should also, endeavor to correct the discharges from the bowels, which is generally accomplished by a mild Cathartic, such as, small and frequently repeated doses of Calomel and Opium, or a few grains of Calomel

with Rhubarb or Caster Oil, and if the discharges are copious, may add acetate of lead, sugar of lead, Catechu or some other astringent medicine, which will generally answer all indications.

Some degree of reaction or partial restoration of animal heat, moisture of skin and a general feeling of relief may generally be obtained, by keeping the patient warm in bed, and administering draughts of some hot herb Tea.

Should these or other proper remedies, not be resorted to and medical advice neglected, the patient will in all probability be hurried to the grave, a victim to the more advanced, and less curable stages of Epidemic Cholera.

When the premonitory symptoms (of which we have just been speaking) have been neglected or improperly treated, the disease assumes a more formidable appearance, and passes into the dangerous form, (which has before been characterised) by loss of pulse, precordial derangements, oppressed respiration, the watery or rice water discharges &c, and is generally spoken of for the sake of distinction, as a second grade of the disease, that which we are most often called upon to treat, and is the common form or degree of severity of the malady.

"Bearing in mind the fact" (says Mr Bell,) "that by far the most powerful causes both as predisposing and exciting, are to

be found in the diet of the persons attacked, and remembering the habits of those who are the most ready victims to the disease, as well as its great frequency and mortality in countries, the rural population of which has been compelled to use damaged or imperfectly matured grain, or vegetable productions of an indigestable nature, we can hardly doubt of the gastro duodenal seat of Cholera proper."

The foregoing remarks very naturally suggest to our minds the propriety of the use of emetics, to get rid of such offending substances, as might be lodged in the gastro duodenal region, when there are good grounds for believing that no inflammation exists.

Numerous articles, in the class of emetics, have been recommended; among the best of which seem to be, Ipecacuanha, the mustard emetic, or simple salt and water &c; as soon as the stomach has been cleaned, and the pain and distress be urgent, administer laudanum and brandy or, camphor and peppermint, exhibit also astringents to check the discharges from the bowels, acetate or sugar of lead and acetate of morphia in pretty large doses, if there is pain and tenderness in Epigastric region, apply a large mustard plaster, or if not too much prostration leeches may be applicable.

In the meantime, to restore and equalize the circulation and

nervous excitement, the patient must be rubbed, with some stimulating mixtures, Camphor dissolved in oil or dry mustard; Hot stimulating pedilavia; dry heat, hot bricks, bottles filled with hot water, warm bath &c; small and frequently repeated doses, of Calomel and Opium; also hot brandy and water and other stimulants, are recommended until the warmth of the body is restored.

If our means have been successful and the features of the disease seem to be changing, great additional care must be instituted to prevent a relapse; if the bowels have become constipated from the use of our astringents and other remedies, we must administer a mild laxative, to keep them

gently open.

The diet should be strict. Barley water, Beef, Tea &c, if the patient is clamorous for drinks (which is usually the case) small pieces of ice may be allowed, which will very much diminish the intense thirst.

There have been almost innumerable modes of treatment, spoken of and applied in this disease, but the plan which I have above given seems to me to be about the most rational and efficacious.

Some Authors have eulogized "venesection", declaring it to be almost a specific, (but it would appear from the leading symptoms of the disease, that this remedy can very seldom be employed with any degree of confidence except

where there are strong inflammatory symptoms present.

(Dr Stevens, swayed by the condition of the blood highly extolls the "saline treatment," generally commencing with a seidlitz Powder, and administering the muriate of Soda, and other saline medicines in frequent doses.

(Dr O'Shaughnessy) injected saline solutions into the veins, sometimes with marked effect, but generally the patient when seeming to be doing well would immediately relapse into his former state and die.

The tobacco enema has been spoken of by (Greenhow of England) in the form of smoke, 30 cubic inches being injected into the rectum for the purpose of producing

a sedative effect, but I think this practice should be condemned, because I do not see what benefit could arise from so dangerous a mode of treatment.

In fine, most of the combinations which medicines will undergo have been tried in this malady, but it appears that when the disease has passed a certain mark, few of them are likely to be of any avail.

When the treatment which we have employed has had no effect in diminishing the intensity of the disease, (from not having seen the patient in proper time) we will be called upon to treat the stage of Collapse. Our main dependence in this stage of the disease, is to endeavour to restore the heat of

surface and suspended circulation, which may sometimes, be effected by stimulating, frictions to surface of the body, Cayenne pepper with brandy or Camphor, ammonia, dry mustard, the flesh brush &c, from internal stimulation, we derive in general but a slight degree of benifit, although gentle stimulants may be allowed if they produce no ill effects, some writers, have recommended cold fictions, with water at Temperature of 60° or even ice, asserting this to be very grateful if not even beneficial to the patient the administration of small pillets of Ice are found also to produce good effects.

A considerable variety of treatment has been recommended in this the stage of collapse, but it seems as if little can be done other than that which I have mentioned. When reaction has

supervened, we cannot do much more than obviate congestion and organic inflammation, which may be effected by gentle depletion, cooling remedies &c, Cups and leeches are much preferable to the lancet, great reliance has been placed, upon fomentations, blisters, mercurial inunctions &c.

Should the system appear much depressed, administer tonics, Quinine being one of the best. The diet of the patient should be strictly attended to (during convalescence), and nothing but the most digestable aliment allowed; such as. Sago, Tapioca, Beef Tea, Barley Water &c.

You have I hope Gentlemen
viewed the preceding pages with
an uncriticising eye - Keeping in
view in the meantime the writer,
who as you well know is merely
commencing his career in the great
Science of Medicine, he has
undertaken to inflict this dis-
sertation upon your better nature,
more as a duty which he owed
to the rules of the old University
of Maryland, than for any great
array of composition, he has
also endeavoured to give a full and
correct view of the disease which
he has chosen for his essay, and should
you be kind enough to forgive all errorous
Ideas which no doubt exist, the writer
will be fully repaid for his time and
labour. - Very Respt. - The Author.

An

Inaugural Dissertation

on

Yellow Fever.

Which is submitted to the examination
of the
Provost, Regents, and Faculty of physic
of the
University of Maryland;

for the degree of Doctor of Medicine;
by Rodney Slisar of Baltimore Md.

An Essay on Yellow fever

This is emphatically the century of inventions and discoveries. The art and sciences are cultivated in a degree unknown to former ages. The science of medicine is not behind the rest; but with gigantic strides is moving on, casting the ray of hope in the pathway of the afflicted. She numbers among her votaries some of the greatest minds of the day. They are not faithless stewards, but, with undaunted perseverance and zeal, have succeeded in dispelling many of the dark and fatal clouds of false philosophy which has so long led the minds of medical men astray. And I would ask where is there a wider field for discovery, and the acquirement of knowledge replete with benefit to the human family, than is presented by the science of medicine?

Yet how unostentatious is her advancement! how feeble is her praise!
Volumes have been written on the feats of military art — the fame of her paramours have been sung with all the enthusiasm of the human mind — their daring feats and chivalrous actions have been painted to the world in the most glowing colors. But how different with the physician, who holds in his hand that which is mightier than the sword, and yet more desirable in the hour of agonizing pain, than the most gaudy honour that fame can bestow. To this he does not demur. For if he were disposed to seek the honour of applause, the imperfection that yet shrouds his science, would bid him beware. For it must be admitted that disease, in many of its protean forms, has in all ages bid defiance to the interference of the medical philosopher or physician; and

has, unmolestedly, swept entire communities from the face of the earth.
Such for years was the case with yellow fever. And even now there is much to be learned ere it can be managed with desirable success. This is a disease that is interesting in every point of view, and although peculiar to warm climates, it occasionally sallies forth beyond its usual bounds, and carries terror and devastation in its course.
No one can claim security, but it is the civil stranger that is most surely its victim. It is to be regretted that, with all the grand inventions and discoveries in every branch of science, in this enlightened day, Physicians are still, comparatively, in the dark in regard to the true character, and proper mode of treatment of this scourge of the human race.
Character ect. – It appears to be "a distinct form of continued fever, consisting of a

single paroxysm, continuing for a variable length of time, with no true remission from its beginning to its close. This continued paroxysm may have a favorable or an unfavorable termination: the former taking place in rapid and complete convalescence; the latter in collapse followed by death".
It is peculiarly a disease of hot climates: it prevails only within particular limits, and during the hottest season of the year.
It is supposed by some to be but a severe form of remittent fever. This is evidently an error. There are many points of difference between the two. We find yellow fever principally in seaport-towns, and other places near large bodies of water, where human beings are crowded together.
The former, on the contrary, is never to be met with except in sections where the population is sparce. In places where the

two diseases are endemic we seldom see both very prevalent at the same time: unless it is as sometimes occurs, that the one is depopulating the city, whilst the other may be raging violently in some parts of the country where the inhabitants are scattered. The attack of Yellow fever is generally at night - the remittent generally in the day-time. The latter may seize one wherever exposed to its exciting cause: and an attack renders the system more susceptible. On the other hand if we are once affected with the former we are free as a general rule to a recurrence of the same.

While Yellow fever is only of occasional occurrence in many of the Southern States, an attack of Remittent fever, of a most malignant character, is endangered by a single night's exposure in the autumn, even in persons who are proof against Yellow fever.

While it ravages the seaport-towns of inter-tropical America, and South-Western Europe; it seldom, or never, makes its appearance in Africa, Asia, or South-Eastern Europe. It is never found in Canton, Calcutta, Milo, Algiers, or Constantinople; and yet commits such dreadful havoc in Gibralter, Barcelona, St. Iago, Boa-Vista, Charleston, New-Orleans, Mobile and Havana. The foregoing facts, together with the circumstances that while Yellow fever is endemic on the island of Barbadoes, where Remittent fever has never prevailed epidemically; and that it is common in Vera Cruz, in the neighbourhood of which no marshes exist, are proofs sufficient that it is a peculiar and distinct disease. Though there are other peculiarities belonging to each, which, as they may serve as marks of distinction, will be discussed in due order.

Symptoms &c. We deem it better to consider the symptoms under the division, 1st into the inflamatory: and 2d the congestive forms. In the inflamatory form, our patient generally complains of pains in back and limbs: violent pain in forehead - not diffused as in bilious and other malarious fevers: and occasionally pain in the abdomen. His face is flushed: general surface of body hot and dry: pulse frequent: breathing accelerated. The eyes become suffused, inexpressive, red, or muddy as if blood and bile were diffused in the conjunctiva. Sometimes the lower eyelids become dark and swollen. The countenance expresses a peculiar anxiety, similar to what is observed in Tetanus. The tongue is coated with a white fur of a pasty consistance, or the coating may be yellow towards its base. It is often swollen, dry, and with pasty edges. Yet more frequently moist.

It is sometimes painful to swallow food, either solid or liquid, in consequence of soreness of fauces and pharynx.

The patient exhibits depression or loss of spirits, and vigour of mind and body, that he a short time previously possessed. He becomes extremely restless - tossing from side to side, and complains of pains in the knees and calves of his legs, with more or less cramp. The stomach is very irritable, the patient vomiting incessantly. He complains of tenesmus and weight, with pain, or a vague sense of distress in the epigastrium. These symptoms sometimes accompany the disease from the beginning; but more frequently do not make their appearance for perhaps a day or two, when they become severe and constant.

As in most other complaints accompanied with fever and gastric irritation, the patient eagerly calls for cold drink, which are very refreshing. The bowels are usually constipated, sometimes

inordinately so, in the commencement.

I remarked that Yellow fever seems to be a distinct form of continued fever, as the febrile paroxysm has no true remission or intermission; for though in some cases there may be a recurrence of the fever, particularly if the state of collapse is not well marked; yet this is an exception to the general rule, and can reasonably be attributed to the derangement of the secretory functions, visceral obstructions or a chronic inflamation of certain tissues - the sequlae of the violent action existing during the first stage - may be considered as a mere epiphenomenon.

It is owing perhaps, to this peculiar feature of the disease, that some medical writers have attributed to it a remittent or intermittent character. There are other symptoms, common to the first stage of the ordinary fever - such as delirium, more or less severe, varying from a slight

confusion of the mind to complete detherinement of the mental faculties, with violent ravings. The patient has a sense of intolerable heat and constriction in the precordial region: and he recoils with horror depicted on his countenance when pressure is made on the abdomen. The urine is highly coloured and scanty. The yellow hue of surface, though not common, may appear at this stage. Also, the characteristic black vomit occasionally takes place at this period.

This stage continues on an average of 40 hours: and may cease in 4, 24, or last 48 or 70 hrs., when the second stage ensues, in which there is an amelioration of the disease. The skin becomes smoother and softer. The respiration more calm. The pulse nearly natural, though sometimes weak: the eyes are less red and more yellow: the stomach comparatively quiet. The pains of back, head and loins, if not

previously relieved, deminish; the tongue is still coated with a dry brown fur; cracked in the middle and with red edges, or it may become entirely or nearly clean. There is appearantly so complete a subsidence of all the prominent symptoms, that the patient becomes hopeful and more cheerful, and looks forward with bright anticipations of an entire escape from the firm hold of this horrible disease. He may even get out of bed, and take something to eat; or drink with his friends in congratulations of his escape from the jaws of death. But alas: this hope is too much like the fleeting prospects of successful enterprise, which causes its temporarily happy possessor to exult in hopes soon to be annihilated. For the disease is still unabated - the appearances are mere deceptions. This delusive calm is apt to deceive those who are not familiar

with the usual symptoms of Yellow fever.
There are phenomena, even during this temporary amelioration, which an attentive observer cannot but consider as signs of an undiminished danger. There is a peculiar jactitation, and singular expression of countenance termed risus sardonicus, when he smiles.
His appetite is depraved - often desiring some crude article of food. The tenderness of the epigastrium is increased.
The redness of the adnata, suffused appearance of the eyes, and flush of face, may have disappeared; but, if it has not already shown itself, you will now behold that characteristic phenomenon of the disease, the yellow tinge, in the course of the vessels of the face, gradually spreading over the whole surface.
The pulse though sometimes nearly natural is slower - in some cases there being only 40 pulsations per minute. The urine is said to

be of yellow tinge when examined in small quantities. In severe cases the patient is more or less dull and stupid.
This stage may continue from 12 to 30 hours, when another class of phenomena, constituting the third stage ensues.
The symptoms of the disease now becomes more marked; and the prostration very great. The pulse is rapid, irregular, sharp and depressed. The patient faints on being raised from the bed: the skin presents a yellow, orange, or bronzed appearance, which disappears on pressure, but soon returns again when pressure is removed. The tongue is usually swollen, moist, indented at the edges and covered with a brown fur having a darker streak along the median line: but it is often brown and dry, or smooth red and chapped. The teeth and gums are occasionally covered with sordes. The patient vomits without

difficulty, but the act is accompanied with much pain. The vomited matter, which, previously, was simply the ingesta mixed with mucus, is now black; though sometimes varying from this state to a dark greenish or chocolate colour. The matter looks as if it had mixed with it fly or bees wings; this appearance is supposed to be owing to a reflection of light upon particles of mucus, to which are adherent particles of a black colour. The surface of the body is cold and clammy; the lower or dependent part of it presenting the appearance of stagnation of blood in the capillary system. The bowels discharge their contents involuntarily, which are offensive, acrid and black.

This stage is also attended with delirium which generally comes on at night; the patient either being stupid, obstinate and whimsical; or furious in his actions - raging with maniacal

violence. He is often unable to pass his urine, which is generally repressed; and there is haemorrhage, from the nose, mouth and anus, which comes from the mucus surface; it being sometimes vomited or discharged by stool. There is also sighing, orthopnoea, singultus, subsultus tendinum, convulsions and coma previous to death. In this latter stage may also be enumerated petechiae and vibices upon the skin.

Instead of this course very often there is an exacerbation of fever; which by those who consider the state of collapse entirely exempt from fever, is termed secondary. It is regarded as salutary in its nature. It presents no peculiar symptoms, and varies in its duration. The patient sometimes recovers, or sinks from complete exhaustion of the vital powers. Or it may assume the typhoid form, and continue for several weeks. Convalescence

from severe cases is generally slow; and the patient suffers with sores and abscesses in various parts of the body.

Death generally takes place between 4th and 7th day, sometimes earlier; or not till the 10th or 11th day, rarely longer.

We now arrive at the second modification, or congestive form of Yellow fever.

This has many symptoms differing but little from the inflammatory form; but in general they indicate a more marked debility, and would lead one from the first to fear a fatal termination. The features present death like appearance; and the countenance expresses a feeling of horror or distressing agony.

The eyes are dull, red and glazey in appearance: and in some cases the pupils are dilated. The tongue is moist and coated in the middle with patches of white fur, but red at the margin and tip. The patient complains

of pains in back and lower extremities, and stupidity with weight in the head. There is but little vascular excitement, the pulse generally weak, but sometimes frequent and full. It is sometimes absent at the wrist, at the same time heart and carotids may be in violent action. It is stated to have been as low as 38 or 40 in the minute. The surface has no time or heat except near the region of the heart; and may either possess a dry or moist pasty consistence.
The extremities in some cases are said to be livid and cold. The commencement is described as generally sudden; prostrating alike the mighty and the feeble. However much the strong boast of the strength when untrammeled by the fetters of restraint, you will now behold them quail beneath the powerful grasp of this wonderful enemy of mankind.

The patient becomes taciturn and dull, and may even fall asleep whilst you are conversing with him. In many cases there is mild delirium, sometimes transient, but often terminating in coma. Occasionally the system may show a disposition to rally: the patient becomes stronger; the expression of countenance better; and perhaps the green spirit of hope may kindle within him anticipations of recovery; but, alas! this is more often but the precursor of a state of vital depression, still more hopeless than before. The epigastrium is tender, and stomach irritable — the disease frequently spending its force upon the latter, when intense vomiting occurs. Again the precordial symptoms are exceedingly distressing; the patient complaining of great weight in the region of the heart. The skin in most cases is of a dark mahogany or bronze colour. The discharge from the bowels exhibit a deficiency of bile; being

generally small in quantity, and of a colour and consistence more nearly resembling pus than any thing else. They are sometimes of a gelatinous consistence. The respiration is occasionally extremely laborious, and the patient expressing his agony by mournful groans or wailing. He will eventy to screen himself from observation by drawing over his face the bed clothes; and if molested he will endeavour to scratch and kick, with rage.
There is, occasionally, hiccough previous to the black vomit, which is most always a precursor of death. And it is remarked by some writers that when the lungs are particularly affected, we have lividity of countenance, soreness of throat, and orthopnoea. In these cases death generally preceeded by entire insensibility.
Again there are cases in which most of the functions of the body are apparently undis-

-turbed; and the only occasion for alarm, is the extreme restlessness, and jactitation, which are soon succeeded by black vomit and fatal hæmorrhage. There are again other cases when the patient may be walking in the street, and the first indication he has of the attack is the occurrence of the black vomit. Upon examination of his pulse it is found exceedingly feeble, if not quite gone at the wrist. Death soon comes on. These are termed walking cases.

Cause. - The cause of Yellow fever is somewhat veiled in obscurity. We cannot positively declare that we know its origin. Many authors ascribe it to miasmata - that subtile yet powerful poison whose baneful influence is feared and felt whenever vegetation is most abundant, and whose effects have been observed from time immemorial, but of whose nature nothing

was advanced definitely till the time Lancisi, more than a century and a half ago, others, and the majority, oppose this view with arguments replete with astounding facts: but, like many more, they can pull down, but are unable completely to build up anything, except through the aid of theory.

The advocates of the former opinion point out the close analogy existing in many particulars between the symptoms and progress of this and bilious fever. And argue that the two diseases prevail in the same places, and at the same season of the year: that whenever one is prevalent, the other is also; that the stranger is more liable to the attack than the native; and, finally, make the broad assertion that there is no essential difference between the progress and symptoms of the two.

In regard to the first of these arguments, we

may state that though we sometimes find the two diseases in the same country, and at the same season of the year; yet, even then their field of action, and the circumstances attending their course, are entirely different; for whilst one may be devastating the city, the other is not more, and probably less severe in the country. We may look in vain for Yellow Fever, in many places where Bilious fever is unusually prevalent. Why do we not, according to this hypothesis, find the former in Constantinople, Algiers, Malta, Rome and Calcutta? where every thing would appear to be present necessary for its production; and yet see it commit such fearful havoc in the cities of New Orleans, Mobile and Charleston. Bilious Remittent fever is common in Honduras, which borders on the sea coast, and is alternately boggy, or dry and parched up-

presenting a perfect hot bed for the production of marsh miasmata, yet Yellow fever never makes its appearance there.
The latter is unknown in Rio Janeiro, where bilious fever is exceedingly prevalent, but endemic at Vera Cruz: whereas both places have the same lattitude; both are built on a low sea coast, and nearly surrounded by mountains: the religion and advance in civilization are much the same: and yet these two diseases, which according to some prevail at the same places, at the same time, are never found together in those places. They both require it is true, a hot climate and hot weather, but to infer from this that they are identical, would be as reasonable as to suppose that many other diseases with symptoms somewhat similar, and prevailing at the same time, are identical with Yellow fever.
The Yellow fever is now the less prevalent in

Palma surrounded by the sea, on the peak of Medina Sidonia, at Gibraltar, or in the pretty and apparently salubrious City of St. Pierre, Martinique: than in Havannah, Mobile, New Orleans or Vera Cruz.
Bilious fever is as prevalent thousands of miles from large bodies of water, provided the material for the production of miasmata is present, as near the sea: a peculiarity of Yellow fever is that it ~~that~~ is never to be found far from such bodies of water.
That the stranger is more likely to incur both diseases than the native is true, yet, occurrence of bilious is far more common than that of Yellow fever. The latter very seldom attacks an adult native in places where it is endemic, but none are exempt from the second attack of the former.
As to the argument that the symptoms and progress of the two are identical, ~~and~~ we may

remark that we deem it entirely untrue; and that it is a conclusion unsupported by facts. They are in most cases strikingly different. The error may arise from the circumstance of Yellow fever sometimes attacking persons, when exposed to the proper influence, who may have been labouring under bilious fever; and, again, from a predisposition to the former only being excited to action, after a seizure by the latter. Of course these circumstances would produce modifications of the disease, more or less assimulating - Bilious fever.

In Yellow fever we see no periodical exacerbation, which is peculiarly characteristic of Bilious fever. In the former, as stated before, the fever is continuous - lasting from one to three days.

The truly pathognomonic symptoms of Yellow fever are few; but those few are sufficient

to distinguish it. We may mention among these. "turgidity of the vessels of the Conjunctiva; the swollen and suffused appearance of the eyes and their pink or red, muddy or glassy appearance — giving to the countenance in many cases, a drunken bewitched expression, which is to a certain extent characteristic."
It is very common for Bilious fever to end in regular Intermittents: a circumstance never observed in true Yellow fever. As to the assertion that the latter is only an aggravated variety of the former, we may remark that it has no shadow of foundation: for the Bilious fever, in many instances, is as virulent as the worst cases of the latter; and many cases of the latter are as mild as the mildest of the former.
The expression of the countenance, exhibiting great anxiety, as mentioned under the head of symptoms, is also peculiar to this disease.

Also, the swollen and black colour of the eyebrow: the undiffused pain in the forehead and orbits: the pains in the knees and calves of the legs. Cramps of the latter: severe rachialgia; pains in the epigastrium, with irritability of stomach - attended, most generally with vomiting. The mental and physical depression is commonly very great: and the jactitation is greater in this than almost any other disease. A decided difference is also observed in the stools and odour of the breath: the latter is like garlic, the stools black and peculiarly characterised.
The post mortem examinations mark a difference. The inflamation of stomach is common to both Yellow and Bilious fevers: but the black vomit is rarely met in the stomach after death from the latter, whilst it is common in the former.
In the Bilious fever, the liver is described

Mr. Stewardson formerly of Phila., as having a bronzed appearance externally and are alive but internally; while in Yellow fever, as observed by Louis, it is frequently of a bright yellow colour, dry, and anemic. The Gall bladder in the latter contains its usual quantity of bile, sometimes less; whilst in the former it is commonly distended with this secretion. The Spleen in the one is enlarged, in the other seldom changed. We are therefore compelled by the force of preponderating evidence to consider the two diseases as wholly and intrinsically distinct. The question now naturally arises, what is the nature of the cause? We deem it to be a peculiar malaria or miasma, generated from animal in combination with vegetable matter. I think it probable that this veg.-animal miasma may either consist of microscopic animalculæ, capable of.

reproducing themselves, or of a peculiar organic poison, which acts as ferment, and is thus capable of generating its like, as the yeast plant in generating its peculiar principle. That this miasma requires for its production the action of long continued heat upon animal and vegetable matter in a state of decomposition: That these conditions, though essential, and not alone sufficient; but in most cases seem to act only as food for the poison already generated in other sections, and conveyed hither in some instances shut up under the hatches of Ships &c; and when thus acted upon is modified by various atmospheric conditions, which may either make it effective or check its development entirely.

That this poison of itself is not in general sufficiently powerful, seems evident from the fact that conditions for its generation are

repeatedly present and yet no disease appears. For instance in docks and along wharves, where sewers empty, are the places peculiarly suitable for the generation of this miasma, where the matters that there lie at rest can be washed and set in a state of fermentation by the necessary degree of heat. Yet these conditions are present in Cairo, Rome, Calcutta &c; but we never hear of Yellow fever in those places. That its cause depends upon the above mentioned conditions, and is not the ordinary miasma of Miasmatic fevers, the places where prevalent, symptoms, course &c. of the disease, we think prove beyond a reasonable doubt. The latter point has been sufficiently discussed in other divisions of the subject. If distinct is it contagious? Few questions have elicited more controversy than this. It has drawn forth arguments from the ablest and most gigantic minds of the profession.

One who is unaccustomed to the abstruse reasonings of Medical Philosophers, is apt, especially if not sufficiently posted on both sides, to be led away by the magic power of earnestness and zeal apparently supported by facts which characterize the statements and deductions of both those who take the affirmative and they who deny it. We cannot therefore do more than express an opinion, formed from such arguments and facts as we deem most worthy of consideration, upon this perplexing, and as yet ill understood subject. It is true that the disease makes its appearance in many places upon the arrival of vessels having it prevailing on board, and even, as sometimes happens, it may break out after such vessels have been for some time in port. These facts in conjunction with its occasionally rapid spread through the city when once introduced

in this manner, have been held by the contagionists as strong points in favour of their theory. They argue that if it thus becomes prevalent in places where it never was known previously, as for instance in Boa Vista on the African coast &c. it is undoubtedly contagious. These apparently strong points, the most plausible, undoubtedly, that has been advocated by the contagionists, are met by powerfully approving arguments, sufficient in our opinion, to annihilate completely all the boasted opinions formed by the advocate of contagion. First, then, we would inquire why it is that cases of Yellow fever in spots where the surrounding air is fresh and pure, do not impart the disease to the physicians, or nurses and other attendants? Does not this fact alone prove that if contagious, it is different from the recognized peculiarities of such diseases

generally? Typhus fever and small pox will spread no matter how pure the surrounding air. Its spread can be accounted for in two ways. First: if this peculiar organic miasma consists of microscopic animalculi, as supposed by some, may they not reproduce their like when in contact with material suitable for food?
Or secondly: may not this miasma consist of peculiar organic matter, which is capable of reproducing itself and when once set in motion, spreading in any or every direction.
The fact of its not finding its way more frequently into the interior of large cities, is explicable by the less likelihood of the conveyance of the poison in the clothing of individuals than in the confined air of Ships.
There are many instances on record of individuals, during the scourge of an epidemic in particular places, flying in every conceivable

direction to escape the disease; and yet the cases are exceedingly rare in which the disease is even pretended to have been imparted by these to other persons. The contagionists hold the fact of an immunity from a second attack as one of their strong arguments, as this appears peculiar to the contagious diseases. But this in the absence of other peculiarities, cannot be considered of much weight. Experiments have been instituted to impart the disease by inoculation with the blood and secretions of those affected; but all of no avail. Even the black vomit has been swallowed without any effect.

Diagnosis. — If the disease is prevailing in the neighbourhood or the conditions for its production are present and suspected, it is not generally very difficult, though the disease may be in the incipient stage. But if it is not prevalent, or the conditions

for its production not at hand, it is almost a matter of impossibility to form a correct diagnosis in the early stage of the disease; owing to the fact that most fevers in their commencement have so many symptoms in common. The excruciating pains in the loins and lower extremities; the supraorbital pains; severe rachialgia; sense of anxiety and constriction at the precordia; in conjunction with the turgidness of the conjunctiva, and peculiarly dark appearance of the lower eyelid, may in most inflamatory cases, enable us to surmise with a considerable degree of certainty as to the probable result. In the congestive modification of the disease, the early peculiar ashy and shrunken condition of the features; the dull, red, and glassy appearance of the eyes; the pasty state of the tongue, which has its middle covered with patches of white fur, whilst the margins is clean

and red; are signs sufficient, in the majority of cases, for a correct diagnosis.
When, however the period from the attack is more advanced, and the epigastric tenderness becomes great, with excessive irritation of stomach, the fever continues regularly for several days then subsides; and if the yellowness of surface, which is common to both forms, now make its appearance: then the whole system becomes greatly prostrated; probably followed by a slight recurrence of fever; and lastly, the vomiting of the peculiar black matter takes place; we may safely pronounce it Yellow fever.
Prognosis. — In order to form a correct prognosis, we must take into consideration the various modifying circumstances that surround the patients, as the condition of the vital forces and degree of susceptibility of each. These circumstances or conditions are; the

age, constitution and residence of the patient; his natural habits and modes of life, as well as the prevailing character of the epidemic. We will make a few remarks upon each of these separately. First, then, the age: if the patient is of that tender age, the period of adolescence — the time when all the powers, both mental and physical are beginning to enlarge; when the imagination, apparently proud of its powers of creation, is less trammelled with the realities of life, and pierces the dim and mystic future, and spreads out before the astonished yet pleasing gaze of the youthful admirer all the gorgeous panorama of this world's inventions: the period in truth replete with joyous, redolent hope — It is this season that aids the fatality of this most fatal disease: and among children, when attacked, it is probably still more deadly. The habits and

modes of life of the Irish, Germans and Scotch, render the disease more fatal; whilst the Spaniards, Italians and French, are much less seriously affected. Between these we may rate the Englishman.
Lastly; if the disease is characterized by adynamic symptoms, our prognosis in most cases must be unfavourable.
Among the conditions of individual cases which indicate an unfavourable result, we may consider the early state of general debility, as the most surely fatal.
Yellowness of the skin, the appearance of a yellow streak extending from the nose to the pubis, or a bronze or mahogany colour of the surface, coming on immediately after the attack is also unfavourable. Other bad symptoms are; a weak irregular pulse; deep sighing; severe pain and intolerable burning of the epigastrium and along the

course of the oesophagus, also great pain in forehead, back, and limbs; a red protuberant eye with probably dilitation of the pupil; a short and violent febrile stage, coma or convulsions; a slow respiration with deep sighs: hiccough, and suppression of urine; are indications of great danger. To these we may add the conditions of the tongue and teeth, which, if the former be clean and red, or covered with a hard and black coat; or the latter filled with dark coloured sordes; are most generally unfavourable. Also, great restlessness with frequent attempts to get up or out of bed; an unnatural dullness or stupidity; a scowling or ferocious appearance of the countenance, an expression of horror if pressure is made on the epigastrium; an unnatural appetite; cramps, a general haemorrhagic tenderness; with vibices and petechia — The latter two symptoms accom-

panied generally with great depression of the pulse and nervous symptoms; yet like hemorrhage they may be coexistant with a state of reaction; great irritability of stomach with excessive vomiting; small white evacuations of a sour odour attended with tenesmus; involuntary discharges from the bowels; priapism, and lastly the occurrence of the black vomit. The opposite of these of course is favorable. We may reckon among the latter the diffused, spontaneous sweats, which occur about the 6th or 7th day; with an abundant secretion of urine; a retention of sufficient strength of pulse after the third day; the skin becomming warm and soft; the cessation of some of the prominent symptoms, such as vomiting, and pain in back, forehead, and limbs; the evacuations exhibiting the presence of bile; the gradual cleansing of the tongue from the centre; and the recurrence of healthy sleep.

Also, strangury and salivation, supervening upon the use of fly-blisters or mercury may be considered in the same light.

Pathology. — This is not known. Some have considered the inflamation of the stomach, and a change in the blood, which becomes dark-coloured, deficient in saline ingredients, and coagulates without a crust, as essential to the disease; but this consideration is evidently erroneous, as these conditions are frequently absent. As to the change of blood I am disposed to consider rather as the effect than the cause of the morbific actions set upon the body. The peculiar yellow-colour and anemic condition of the liver, as described by Louis, and by him supposed to be essential to Yellow fever, has been proved by Dr. Josiah C Nott, of Mobile, and others, to be as frequently absent as present; particularly in the epidemics of the South of this

Country. Others again, suppose that the poison producing this disease, has its principal action on the ganglionic and spinal systems of nerves.

But the most reasonable theory in my opinion is, that its action is both upon the circulatory and nervous systems. That, in accordance with this, it may be carried by inhibition directly into the blood, changing its composition, and at the same time, whilst driven to every part of the body, may produce a secondary deleterious influence on the ganglionic and spinal nerves.

The morbidly augmented sensibility, the general indisposition, the acute muscular pains, head-ache, chills, sudden prostration &c., evince sufficiently well, that the general nervous system is greatly and early affected.

Autopsical Appearances. — The advocates of the doctrine that the disease becomes

localized, or in other words, that this or that organ becoming inflamed, stamps the general morbific derangement with its own peculiar inflamatory type, will probably refer you to the lungs, stomach, or liver, as presenting examples confirmatory of their peculiar opinions. With the same argument we may say that the storm is localized because it blows down trees here and there, when it is shaking the immense forest to its foundation; or that the gale is localized when a well tried and substantial Ship is wrecked in one place, whereas the mighty deep is convul-ed into vallized furrows, and raging billows from the tremendous war of the elements.
It is nevertheless true that most of the organic system does present signs of morbific change, which, however is not constant, therefore not pathognomonic.
We shall now examine these various structural changes. The membranes of the brain

present interesting points of consideration. The dura mater shows signs of previous inflammation – the whole surface being studded with dark spots and patches of lymph. The arachnoid and pia mater also are changed; the former having sometimes beneath it yellow serous effusion; the latter membrane as stated by Louis, is injected with blood when the disease is rapid in its progress, whilst in chronic cases an effusion of serum is found. The brain proper is ordinarily firm with an injected state of its vessels, and an effusion of serum into its ventricles. The blood being settled in the more depending portions of the body and limbs, causes their posterior surfaces to assume dark and nearly black appearance, while the upper or anterior surface is ordinarily of a dusky yellow colour; and the scrotum and ears are of a brownish black. Extravasation of blood has been observed in the various cavities of

the body and organs. The muscles have lost their natural red colour and firm consistance, and are dark and soft; hence the erroneous opinion that the body becomes rapidly decomposed. A yellowish line may sometimes be observed extending from the nose to the pubis.
The lungs though usually healthy, are frequently found engorged with blood, and their surface covered with dark coloured patches, presenting the appearance of splenification.
The blood in the autopsies, is always found in a dark and fluid condition; quickly coagulating when set aside; and the coagulum is usually much less firm than in health, showing a great deficiency in fibrine.
It is even in some cases size and buffed; but in these cases there has invariably been found by those who have carefully investigated the subject, inflamation in some organ or membrane of sufficient extent and degree to account for this appearance.

In most of the cases the mucous membrane of the stomach presents appreciable signs of lesion, being more or less red, thickened, mammilated and softened: the cardiac portion is usually more affected than the pyloric. It generally contains a dark coloured liquid matter resembling black vomit; but, sometimes a pale viscid fluid with dark coloured flakes floating in it. It is also ordinarily distended with gas. There is generally but little change in the muscular and peritoneal coats. Usually the vessels of the stomach are congested, particularly towards the cardiac extremity. This engorged condition is supposed to be owing to the loss of contractile powers of the vessels, which offer no resistance to the flow of blood in them, and are unable to unload themselves when once distended.

The epithelium of the Oesophagus is sometimes eroded by inflamation supposed by Mr. Wood

and others to be owing to the action of the acrid matter vomited. Louis questions whether there is any connection, as supposed by some, between the painful and burning sensation experienced during life, and the lesion after death.

The peculiar anemic condition of the liver, as described by Louis as a constant appearance, has been proved by other Pathologists to be absent in at least half the cases of Yellow fever. It is found in various conditions and presenting a variety of colours. It is described by Dr. Mott, who examined numerous cases in the epidemics of Mobile in years .37, - .39, - .42 - 43 and 44, as sometimes resembling very closely gingerbread, or new leather; ochreous and occasionally of a dark blue or dark chocolate colour; and instead of being dry, as in Louis' livers, they were excessively engorged with blood. Others again were of a dark olive, whilst

a few were quite natural.

From these facts with many others, we may not be surprised to find it of almost any shade — pale, reddish, brown, olive, yellow, greenish, or exhibiting the appearance of rotten curd. There is usually the natural quantity of bile in the gall bladder according to some authorities, but Louis states that it contains less in this than in other acute diseases, though it is generally of an olive or pale green colour. In some cases it is filled with a dark or black fluid resembling somewhat the appearance of ink. The biliary ducts particularly the cystic, are found occasionally to be impervious. The bowels contain the characteristic black vomit, but it is generally of a harder consistance, particularly in the large intestines. where it may be compared to pounded pickelled walnuts. Its mucus membrane is somewhat inflamed throughout its whole course; to a less extent however than in

the stomach.

It is related by Dr. Mott that in some cases examined by him the whole intestinal canal was coated with a thick dark pasty like matter resembling blackberry jam — a compound no doubt composed principally of black vomit. Intussusceptions also are frequent in Yellow Fever. The glands of Peyer are not often much affected; except it is in the typhoid type, when enlargement and softening of them are more frequent.

The kidneys are seldom materially changed, but occasionally their external surface is of a yellow colour and their substance considerably congested. The bladder though generally contracted always contains some urine — varying in quantity from a few ounces to a quart. The latter sometimes bloody, and occasionally has mixed with black matter like the black vomit. The mucous coat is generally normal, though sometimes either highly injected or covered

with yellow mucus.
The black vomit is supposed by many to be blood changed by the secretions of the stomach after it has been exuded. Others again, with Dr. Rush supposed it be vitiated bile.
The majority of Physicians consider it to be blood altered in appearance by certain morbific causes; or in other words that it is a morbid secretion from the gastric and probably also the intestinal mucus membrane.
It is probably converted into this state by the diseased condition of the mucus tissue and the altered state of the capillaries. It is asserted by Professor Dickson that he has met with black vomit in cases of Gastro-Enteritis, and in Catarrhal and bilious fever, in one case of Varioloid, in two of Dropsy, and in Pregnancy; but upon a careful examination I believe there will be perceived a difference both in appearance and composition between the two kinds. Prof. Chapman of Philadelphia

believes that the black vomit is - peculiar only to Yellow Fever.

Treatment. - The principle of practicalong since established that we must treat symptoms, not diseases, is emphatically applicable in the pestian malady we are now treating. In one epidemic the lancet is the sheet anchor - in another it is death.

The distinguished and philanthropic Dr. Rush, whose immortal name will live upon the pages of historic medicine after thousands of his medical brethren have been buried in the whirlpool of oblivion, sang loudly the praise of this remedy, and the antiphlogistic treatment generally, in 1793, but was forced by his experience to adopt almost the opposite mode of treatment in 1805.

From this and also the fact that it may and does vary even in different localities of the same epidemic we are frequently at a loss to tell the influence of any remedy. Many cases

require no treatment at all, but get well of themselves, whilst others are hurried to the tomb in defiance of all the boasted virtues of medicine; But there are few, I presume who will deny the benefit of remedies when judiciously administered. The indications for treatment appear to be in the first place, palliation of febrile symptoms; prevention of the second stage; and thirdly, support to the falling energies of the system. We would probably use the lancet for the first indication, provided there were great accelleration and hardness of pulse, heat of the general surface, and pains in head. But, at the same time, we would bear in mind that this febrile excitement is but temporary, and that our patient may soon require all the strength that he can command to bear up under the prostration that succeeds. We therefore would not be lavish in the extraction of blood; and would only perform venesection in the earliest

stage of the disease, with the view of calming the high excitement, but not of curing the disease thereby. We would use cold affusion, when not contraindicated by dyspnoea, chilliness, or diarrhoea. In patients of a lymphatic temperament, or delicate constitution, the warm bath is equally as beneficial; and not attended with the same danger. We would use this in all cases characterized by adynamic symptoms. The patient should be allowed to remain in about 10 minutes, and be well rubbed the whole time: afterwards wiped dryly, and wrapped in blankets, and put to bed. If the stomach be loaded with ingesta, and there is a disposition to vomit, it should be aided by warm and diluent drinks: and in the very first stages of the disease it is even recommended to administer an Emetic of Ipicac, when not contraindicated by tenderness in the epigastrium, or irritability of stomach.

As a characteristic symptom is a deficiency of all the secretions, and especially a vitiated and much diminished secretion of bile, a mercurial cathartic, as Calomel, or its combination with Colocynth, would seem to be indicated. I would administer grs. xij or xv of the former: or a dose of grs. x each, of that and the Ext. Colocynth — following it in 3 or 4 hours by Sal. Epsom, Rhubarb, Magnesia, or any other of the mild aperients, bearing in mind, of course the peculiar properties of each, and the indication to be answered. If free evacuations are not produced by these means, enemata must be resorted to. It is probably preferable to give the cathartic before the use of the bath. If these remedies have a happy effect, the stools become of a better consistance, and more dark. The bowels should be kept open by the occasional repetition of some mild aperient: the use of Sulph. Magnesia, however, to be

avoided in the latter stage of the disease, for fear of producing thin, aqueous discharges, which should be carefully avoided.
If the skin be hot and the patient restless, nervous, and unable to sleep, Pulv. Doveri, in the dose of grs. x or xij, is frequently very beneficial to moderate the heat of the skin, calm the nervous system, and produce sleep, provided it is not contraindicated by congestion or other affection of the brain. This remedy is peculiarly indicated when the pulse is frequent and feeble. Infs. Aristol. Serpentaria, and Spts. Nitre dulcis, may be used in similar cases. And if there were great thirst I would allow the patient frequent small drinks of ice water, or minute pieces of ice.
The specific effects of preparations of mercury upon the system, are said to be a sure cure in this disease. When used they should be commenced with early. The best preparation, probably, is calomel, which should be given

in 3 grs. doses, every two hours, until the general system is affected. The remedy should not be discontinued as soon as the gums become touched, but given until there is an entire alteration of symptoms. When the bowels become too loose, Opii should be combined with the calomel. And when there is an impracticability of administering the medicine in this manner to a sufficient extent, it may be applied by the endermic mode in the form of Unguentum. In all very severe cases attended with high inflamatory symptoms, I believe the production of ptyalism is a decided benefit, and I would therefore give the preparations of Mercury for that purpose but as I believe the pathognomonic symptom of the malady is a diminished, and occasionally and an entire cessation of the secretion of the liver, I would in the majority of cases avoid the production of salivation, and give a large dose of calomel in the commencement,

and renew it frequently, until the hepatic secretions became restored, as evinced by the deeper colour, and better consistance of the stools. For distressing pain about the orbits I would direct sinapised pediluvia and the shaving of, and application to, the scalp, of a bladder filled with pounded ice. These failing, I would then order cups to the nape of neck, and leeches or fly blisters to the temples; and finally a blister along the spine.

For the gastric irritability, if slight, application of sinapisms to epigastrium, are often highly useful. And the internal use of small quantities of acid carbonic acid water, effervessing draught, Seidlitz powder &c., with or without addition of one of the preparation of morphia. If there be pain or pressure in the epigastrium, leeches, followed by warm mush poultices may be of much benefit. When the second stage is setting in, all the febrifuge and depleeting remidies

should be suspended, and with the continuance of the preparation of mercury, if it be given for its constitutional effects, measures should be adopted to combat the gastric inflamation and prevent collapse, which is so liable to supervene in this stage of the disease. For the former indication I would give the acet. of Lead in grs. ij, every two hours, dissolved in water, with the addition of a small portion of acetic acid to prevent the poisonous effect of the lead, as it ought to be continued until thirty or forty grains have been taking, if the irritation be not sooner relieved. This remedy, however should never be used when there are signs of cerebral congestion, or much vascular excitement. At the same time I would apply a blister over the region of the stomach; and to calm the nervous irritability would probably sprinkle a small quantity of acet. morphia on the denuded surface. The patient should be allowed mild, nutritious

diet, such as animal broths, soups etc. in small quantities. Lime water and milk in equal quantities, and said to be exceedingly useful in some cases.

For the second indication stimulants or tonics should be carefully employed. When not contraindicated by cerebral symptoms Gum Opii in doses gr i, is highly useful when a state of collapse is feared. Also, egg-nog, brandy-toddy, Carb. Ammonia, Ol. Turpentine, Wine-whey, Capsicum, the Comp. Inf. Cinchona or Quinine, with a nutritious diet, are highly indicated. The remedies are only given as palliatives or supports to the system until the spontaneous termination of the disease.

Much injury may result from a careless or injudicious administration of Alcoholic stimulants, independently of the evil arising from the creation of a taste for an article fraught with such terrible ruin to the human race. I would therefore depend on it only in such

cases where other less harmful remedies fail. Though rapidity of remedial aid is as much demanded in that form of Yellow Fever, characterized by high inflamatory symptoms, as in almost any other; yet there is a call for a more rapid administration of remedies of an opposite class in the congestive variety. There is no time to parley in such a crisis. A human life is at stake! The energies of the system are bound down by the insidious enemy! Aid must come from a skilful source, or all hope will soon be over! We cannot, as in ordinary warfare, hope to be successful by directly combatting the invader; but, on the contrary, must succour ~~the~~ and aid the falling energies of the invaded. Sinapised pediluvia, mustard plasters to the ankles, thighs, upper extremities, epigastrium and spine; frictions to the general surface, hot bottles or bricks, or bags of salt; with enemata of Turpentine etc. with the free use

stimuli & tonics internally, are the usual remedies.

It is in this form of the disease, that large doses (grs. x to xv) of sulph. Quinine are much lauded by some physicians, and no doubt with reason, provided there be an entire absence of febrile symptoms: I have been informed by a physician of the U.S.N. who was much among the Coast Fever of Africa in 1844, that the disease was treated with Calomel and Quinine; 10 of the former to 20 of the latter every 3 hours until the secretions of the liver, bowels and surface become more normal. Together with sponging the surface with vinegar every four hours during the violence of the fever

The scurvy that proved so distructive to our noble Officers and men during our recent Campaign with Mexico was quite diversified in treatment. The most successful mode that I have been able to learn was by the

administration of Castor oil mixed with lime or lemon juice. a Tablespoonful of each every 2 hrs. until the system appeared free of the morbid agent and a disposition evinced to reach. Patient sometimes would take pints of the oil in this way, Iced lemon-ade used as the febrifuge draught, and small pieces of ice allowed to allay the burning thirst. As soon as convalescent, nourishing soups to support the system freely allowed.

An
Inaugural Dissertation
On the
Duties of the Physician
Submitted to the Examination
of the
Provost Regents & Faculty of Physic
of the
University of Maryland
for the
Degree of Doct. of Medicine
By
Joseph W. Hendrix
of
York Co.
Pa.

In accordance with a custom that time has made honorable & believing that your opinion of the capability of a candidate for graduation, is founded on his intelligence & general knowledge of the fundamental principles of medical science & his habits of industry & morality as observed during an attendance upon a course of instruction, I offer this dissertation to your consideration. The object of which is to present a view of such qualities as seem to me most desirable in the physician & such duties as I shall feel devolving upon me, should I be authorized to go & practice the healing art. There is perhaps no other profession in which certain fixed principles should be more rigidly adhered to than in that of medicine; and certainly none other in which manifest ignorance or

or neglect of them is attended with more fatal or disastrous consequences. The man who enters upon the practice of medicine, assumes new & high responsibilities; his relations to society are entirely changed; his labours, if directed by rational principles, may soon win for him the confidence & esteem of those whose sufferings he relieves and render his presence a source of delight; not to the afflicted alone, but to every one that appreciates humane & benevolent actions. On the other hand if ignorance & arrogance are his idols, though he may for a time vegetate in fungous luxuriance, yet his feeble vitality will soon yield to the chilling blasts of scorn, and his name be consigned to that insignificance from which it never should have emerged. The rationale of medicine is often overlooked; that which to us

is most important is frequently most neglected, It should constantly be borne in mind that the first & last aim of the physician's efforts is, or ought to be, to assist Nature. When disease attacks an organ and impairs its function and thereby deranges more or less the whole system, Nature rallies to the rescue, ~~&~~ She makes an effort to throw off this morbid influence, & endeavours to restore the parts to their normal or healthy condition, This vis Medicatrix naturae of the writers is often sufficient for the task: and when found so, should not be meddled with, It is in those cases in which this power is wholly unable or would be too severely tasked, that the physician's services are actually demanded.——
To discriminate between the diseases that indicate medical treatment & those that do not, constitutes a part of the physician's

knowledge which is not the least important, It is highly probable that some medical men eager to cure all diseased conditions they meet with, do, by a treatment too active often aggravate the existing disease & entail additional misery upon their unfortunate victims. Such a course is highly pernicious & deserves our most rigid censure, The maxim of Hippocrates is applicable here, "first do no harm, then do all the good you can. To practice medicine caute caste probeque, is one of the most noble avocations in which man can engage; and requires a constant devotion of time and talent — a continued & untiring zeal which must cease only with professional life. Hence, the requirement of the popular voice, that the physician should be an energetic, intelligent, sober & honest man,

We will now proceed to notice some of the means which the physician has at command & the practical rules by which he should be governed, in forming his opinion of disease, and of the indications for treatment. The diagnosis of disease is sometimes not difficult; but it often requires all the skill tact & judgment, which the physician is capable of exercising. This ability to discriminate disease can only be fully obtained by close observation & careful study at the bed side of the sick. In the examination of disease we should successively inquire into the nature, the organ or organs involved, the cause & the stage of the affection. To answer these inquiries we may refer to many different sources, among the most prominent of which, may be mentioned the pulse, tongue, skin, eye the secre-

tions & excretions, to which we add the very important means - percussion & auscultation. There are others of much value, such as habits of life, climate, epidemics, predisposition & idiosyncrasy. In forming an opinion of the value of these various means in diagnosis, we must bear in mind that an accurate knowledge of their condition in health is indispensable; for it is by their deviation from the healthy standard alone, that we can judge of disease. This is especially the case when applied to those recent and valuable guides to diseases of the thoracic organs, I mean percussion & auscultation. The young physician should omit no opportunity of making himself familiar with the sounds of the chest in health, and that too in different persons, as well as the changes which these sounds undergo in the va-

rious diseases to which these organs are liable, This subject is one of much importance & claims a large share of the medical man's attention.

Having by a close examination of all the symptoms determined upon the disease; the next step is to consider the treatment, In diseases of an acute or highly inflammatory character, attended with pain & febrile excitement an antiphlogistic course is indicated. This includes those agents which reduce the powers of life, and take from the system the pabulum of the disease, Among the most powerful agents of this class is venesection, Much difference of opinion has existed as to the therapeutical value of this agent; some resorting to it almost exclusively, others denying its utility or propriety in any disease.

But these may be considered extremes; and the prudent physician, will in the course of his practice find but little room to doubt the power & efficiency of this agent in arresting the progress of disease, when judiciously applied, It acts as a sedative, by withdrawing from the heart its natural stimulus; and as a revulsive by changing the course of the current of blood, thus allowing the oppressed organs to recover their tone, — Emetics & Cathartics are both agents of this class; the former of which evacuates the stomach, by reversing the peristaltic action & also by action of abdominal muscles, this often produces the most happy effects in recent attacks, by removing from the system a large quantity of ingesta; which, if suffered to remain would prove troublesome in the future treatment of the disease; they

also have a sedative action and promotes the cutaneous secretion.

Cathartics fulfil an important indication in the class of diseases of which we are speaking, they evacuate the alimentary canal by increasing its peristaltic action, their adaptation to febrile diseases is pretty general & their effect seems to be owing not merely to the removal of the feculent matter, but they seem to exercise a sanative influence & revulsive tendency upon the system. This class of agents seems to be peculiarly useful in dropsical or serous effusions, The hydragogues or drastic cathartics drain from the blood its serum, the vessels thus relieved become relaxed & then upon the principle of endosmosis & exosmosis the effused fluid is taken into the venous canals & thrown out of the system through the alvine evacuations. Other agents of

similar therapeutical qualities might be named, but in this place it is deemed unnecessary, In the same class of remedies we will frequently find agents agreeing in their general properties but differing very materially in value as curative means.— There are many circumstances too, attending particular diseases, which indicate the use of one substance in preference to another of the same class; though possessed of the same general properties, yet not equally applicable in the same case, It would be difficult to describe these cases, & I shall not attempt it, but will merely say that the physician will find ample scope for the exercise of his perception & judgment, in selecting the remedies best adapted to each particular case, It is proper here to remark that depletion, blood letting especially, should be used with caution, In diseases of a low grade or typhoid type it is almost

always inadmissible, Although there may be febrile action & inflammatory symptoms indicating its employment; other means should be resorted to for the purpose of quelling the inflammatory action, and the vital fluid should be retained to sustain the system in the latter stages of the disease. The object here, being to husband the patients strength against the prostrating effects of the poison, whatever it may be, & thereby render the convalescence more speedy & certain. Acute diseases & their treatment having been considered in a brief & superficial manner; we are now led to notice chronic affections. These diseases may come on gradually without presenting any active symptoms; but they often supervene acute diseases, some of which have been judiciously treated; but more frequently those that have not been treated at all or what is far worse, have been badly treated,

A proper attention to the rules of diet or hygiene, is of more value in this most troublesome class of diseases, than any set of agents in the Materia Medica.

The class of medicines however which have most frequently proved useful, is tonics. They seem to operate by increasing the tone of the system, improving the appetite & supplying that nervous influence upon which all organic & functional action is supposed to depend. The bitter vegetable tonics are used with advantage in chronic derangements of the digestive organs. In anemia, or that state of the system in which there is found a deficiency of the corpuscles of the blood the ferruginous preparations are strongly indicated. The operation of this class of tonics is singularly gratifying & the physician will often see the pale death like hue, yield to the healthy rosy

blush which to the young female especially is so desirable. They supply the blood with its colouring particles & restore the secretions, some of which in most of these cases, are suspended. We might here go on to notice other varieties of disease, with their modifications & medical agents with their therapeutical indications; with all of which the physician should be well acquainted, but, other subjects claim our attention.

In country practice, the physician surgeon & obstetrician, must be combined in one, Generally it is not supposed that he will undertake the performance of all the bold & master operations of modern surgery, but many cases requiring much skill & ingenuity in their management, will fall under his care & demand his most prompt & active attention. A correct knowledge of anatomy is absolutely essential in surgery-

as well as in the next department we shall consider, Firmness & judgment are absolutely necessary to the surgeon, indeed, more skill is often required to know when an operation should be performed, than to operate after the decision has been made, The surgeon who saves an important member from the knife deserves the approbation of his fellow beings a thousand times more, (though he may receive less) than he who amputates a dozen that might have been saved. But while we must admit that rashness in surgery as well as in every thing else is a bad practice; we at the same time called to admire those bold efforts of the surgeon by which he snatches his fellow beings from the very jaws of death, —

In obstetrical practice the physician is sometimes called to witness scenes of

suffering that are truly distressing to the man of fine feeling. The safety of the parent & her offspring, is often involved & the lives of both are saved by the skill & firmness of the medical man. To be well acquainted with the parts involved in labour, as well as its phenomena — to know when to assist & when to let it alone, are points, ignorance of which allows of no excuse in the medical man. He should constantly bear in mind that a meddlesome midwifery is a bad midwifery. In cases of poisoning, it is scarcely necessary to speak of the importance of knowing the most appropriate treatment; as it must be plain to every mind that ignorance here would place him in an awkward dilemma; one which would lessen the confidence of the community in his skill if it did

not render him a fit subject for a court of Justice. We will now conclude by considering some duties of an other character. Every man, at the time of his graduation, however learned may have been his teachers, must feel, or ought to feel, that he has attained little more than a knowledge of the general principles, or the foundation of medical science. He should feel that he has only properly commenced the study of medicine. His subsequent industry & zeal are to make him the truly practical & useful physician. Then, it follows, that he should read; study carefully; think philosophically. He should not attach himself to any exclusive sect or system; but from all he should endeavour to glean that which would add to his stock of knowledge. He should not turn a deaf ear

upon those worthy old ladies, whom he will find, on his missions of mercy, willing to give the results of their experience to mankind, some of which the physician may turn to good account. With a zealous eye he should watch the march of Nature & from her infer his rules; then will the experience of each subsequent day advance him in the paths of science; and then will subjects, which at first were shrouded in mystery, gradually become unfolded to his view & appear plain and natural.

To his patients his course should be dignified & honorable. He will often become the confiding & bosom friend of families; with their domestic troubles, their apprehensions & fears, he will become familiar. His rule should be to divulge nothing. His manners

should be gentle & soothing; he should manifest a kind sympathy for the distresses of his patients, without suffering it to unnerve him. In pursuing of this mild but firm manner his approach will seem to be that of a friend & his visits like those of a guardian angel ministering to the relief of suffering humanity. While, on the other hand if his manners be rough & unfeeling, the patient already depressed, will feel his spirit sink within him, as if in the presence of one who had come to pronounce his doom.
To make no distinction between those of rank & those of humble life and to cure as cheap as you can constitutes another important duty of the physician. His habits should be characterized by temperance & sobriety; these

though expected of all, are particularly demanded of the physician. He who chooses this dignified & noble calling should remember that he has to decide in cases of life & death — that the hopes of an afflicted family, are centered on his exertions — that a heavier responsibility rests upon him in the sight of God than in any other station — how unfit with mind confused would he be to exercise a profession which above all others, requires clearness of thought precision of judgement & absence of all undeadiness — which in a word, demands the active employment of every intellectual & moral quality. Besides these duties to those placed under his healing care, there are others due his professional brethren as well as his

fellow man generally. The observance of that golden rule, which is the basis of all honorable actions, would tend to elevate the character of the medical profession, and increase the usefulness of its members. I cannot express what I wish to say here, better than by using the language of another,

"To your brethren be just, to mankind at large
Be ye faithful to all, and all duty discharge,
To each one be kind, to each one yield his right,
In all other topics let each one try his might,
To superior claims, you should gracefully yield,
But only to merit sprung from honor's green field;
To age be respectful, to its faults ever blind,
To your equals be courteous, to inferiors kind,
To woman be gentle, with a smile greet the child,
And honors shall crown you & your griefs shall be mild."

If the physician pursues this course, prosperity & happiness will

attend him; the child, upon the mother's lap will be taught to lisp his name with praise, The widow & orphan even in their affliction, will bless his skilful & benevolent exertions, though unsuccessful. The Institution that shed upon him her brightest honors, will cherish him, as the fond mother cherishes her offspring.

An Inaugural dissertation,
on Acute Gastritis. Submitted to
the examination, of the Provost
Regents, and Faculty of Physic,
of the University of Maryland;
for the Degree of Doct. in Medicine:
By Thos C. Hance
Calvert Co Md.
1849

Acute Gastritis

Nature: An acute inflammation of the lining membrane of the Stomach, which constitutes the disease of which I propose to treat, but which most generally extends to the submucous cellular tissue; involving more rarely the serous investment; we have the inflammatory action running high, in the very commencement of the disease. At this period, the inflammation is open and frank in its character, but as the disease advances, it sooner or later assumes, more or less of the typhoid type. The tendency to run down into this low state, seems to occur especially, when the Gastritis is secondary, or ingrafted upon some previously existing disease as our common miasmatic fevers. typhus. chronic Hepatitis &c.

Acute inflammation of the stomach is rapid in its progress, and speedy in its terminations, particularly when it is very severe, and the inflammation has extended to the serous coat.

Inflammation of the mucous membrane, differs very essentially from that of the serous. We find that when the serous tissue, the peritoneum for example, is the seat of acute inflamation, that it rapidly diffuses itself, and spreads over the whole membrane, and this is, as a general rule, a characteristic of inflamations, of serous membranes. It is in this respect that the inflamation of the two tissues, differ so widely. Inflammation of the lining membrane of the alimentary canal, often exist to a very limited extent, without displaying any disposition, or tendency to spread. This is beautifully and satisfactorily exhibited in the disease of which

I am speaking, as revealed, not infrequently, upon post mortem examinations. In speaking above, relative to the comparative tendency of the inflammation, of the tissues, to spread; I stated that it was in this respect they differed so widely, as it might be infered, from this sentence, that I wished to convey the idea, that, though differing in other respects, the one mentioned, was the most striking: I would here add, that it differing essentially in many other respects, of more importance & interest, particularly in their terminations, or sequela.— Yet although the clause is rather general & indefinite, the point under consideration seems to stand sine controversia; as it is certainly the most interesting and remarkable when regarded in the connection in which it is used.

"The different portions of the alimentary canal, as they differ in function, differ also in their diseases, and particularly in the symptoms, by which they are revealed, each seeming to add some new & peculiar feature, to the individual disease, of which it is the seat.

I may not be uninteresting, in this connection to trace the progress of the inflamation, in the two tissues, and note some other peculiarities, and differences. As the inflamation advances, in the serous membrane, we find as its products,- an effusion of serum, or blood mixed with serum, sometimes pus, particularly when air has been admitted into the closed sack, and coagulable lymph.

"This tissue is particularly subject to adhesive inflamation; the plastic lymph, is sometimes, poured out upon a free surface, forming false membranes-

of organized lymph; when thus poured out between contiguous surfaces, it may, and generally does result in their agglutination. The serous membranes do not readily take on the ulcerative process, indeed ulceration commencing in the serous membrane, is a thing of very rare occurrence. It possesses a similar power, to resist mortification, unless when communicated from other parts. Hardening & thickening may be mentioned, as the results of the inflamation, though generally the consequents of chronic inflamation. Having made a superficial survey of the terminations, of inflamation of serous membranes, I will return to the mucous and see how they behave when the seat of the same diseased action. The first and most interesting fact, which commands our attention is, is the remarkable indisposition they manifest

to adhesive inflamation; the beauty & importance of this provision, would be but too plainly told, were the mucous membranes, as ready to throw out coagulable lymph, and to adhere to each other as the serous. "We would have death following in the footsteps of almost every occurrence of inflamation in the air and urinary passages, as also in any part of the long tract of the alimentary canal. Some of our most common, an curable inflamatory affections, would not only defy the united skill of men of science, but would utterly confound presumptive, and abortive Quacks, whilst their formidable host of Panacea's, and mystic powders, like the shadows from which they emanated, would soon be forgotten, or if thought of, would be reckoned among the things that were. But inflamation of the mucous membrane, is attended with of the pouring out of serous fluid, or viscid mucous,

or pus, or blood. Indeed it has be contended by some, that, the material of plastic lymph, is not infrequently thrown out, by this membrane. The advocates of this theory, regarding, the exudation and formation of adventitious membranes, so frequently met with in croup, and sometimes, in other mucous passages, as similar in character to coagulable lymph. Though they resemble in some respects, they differ very widely in others, and I would be unwilling to adopt this theory, until satisfactory proof can be given, that they possess the power of becoming organized.

Symptoms: Acute inflamation of the stomach is revealed, by, pain, of a burning character in the epigastrium, tenderness upon pressure over the same region, attended with frequent vomiting, and intolerable thirst, without the patients being able to retain, any in his stomach, even cold water, is rejected

as soon as taken, and any attempt to introduce anything into his stomach, is followed by increased distress & vomiting. The upper part of the abdomen is more or less tense, and we sometimes have considerable tympanites. The pain over the epigastrium, is augmented upon pressure, the breathing short and hurried, and the patient is very reluctant, to take a full breath, in consequence of the increase of pain, upon the full descent of the diaphragm. The countenance presents a very anxious expression, indicative of the acute sufferings of the patient. Great prostration and debility, is early exhibited, in the disease, as manifested through the sanguiferous and muscular systems; The head is generally more or less affected, and we sometimes have delirium, though this latter is a rare symptom: in most cases the mind is unusually clear, even to the fatal termination.

"The bowels, may be confined, or otherwise, when an irritant poison has been the exciting cause of the disease, they are mostly relaxed with frequent, and griping stools. "Hiccough is sometimes a very troublesome symptom, though by no means constant; it generally comes on late in the disease, when there is great depression of the vital powers, with sinking: when it makes its appearance late in the disease, it may be generally regarded as an unfavourable symptom, it may and often does cease, half an hour or hour, before the fatal termination, but not infrequently continues, till death closes the scene.

"Having taken a superficial survey of the most important local symptoms, I will note some of the more general symptoms; and see how far the system at large is affected. "The pulse though small at first, is sharp and hard, not unlike the pulse of peritoneal inflammation.

If blood be taken, from the arm, at this period, the pulse will be found to develope itself under the lancet, but as the disease progresses, it soon loses, its hardness, and becomes, thready and feeble. The muscular power, undergoes, a similar depression, the patient becomes, pale and faint, with collapsed features, cold extremities, and a cold perspiration breaks out, over his whole surface; that inflamation is the cause of this subdued, state of the circulation, is evident, for we have seen above that the pulse rises and expands, under the lancet, and the above array of symptoms, are often relieved, by the remedies, of inflammation.
I have said that it is evident, that inflammation is the cause, the why or the wherefore, may not be so evident, as we do not usually, find inflamtion, producing (if I may be allowed the expression) so sudden, and powerfull a sedative or depressing effect upon the system, particularly the sanguiferous.

Being aware, of the remarkable sympathy, which exist between the heart, and the stomach, and having seen the dispepsia, nausea and vomiting, which accompanies acute inflamation of the stomach; the idea, seems to be suggested, and I believe is adopted by most Physician's, - that in virtue of this depressed state, the impression is speedily conveyed to the central organ of circulation, through the medium of the organic nerves, both organs being largely supplied, by nervous filaments from the solar plexus.

I think the most satisfactory, and what seems to me to be the most rational view, is based upon the laws of derivation. The stomach being the source of irritation and ~~[illegible]~~ inflammation, detracts from the vital manifestations, of other parts, particularly the heart, in virtue of their -

intimate and remarkable sympathetic relations; in consequence of which the heart is deprived of its due nervous influence:— hence all all the asthenic phenomena, which ensue.

Diagnosis: "Having noted most of the symptoms, at least the most prominent; we may in general anticipate, but little difficulty in classifying the disease.

"We must not expect to find all the symptoms, above detailed, in every individual case, nor is it necessary, that we should, to form a correct diagnosis; such cases may occur, and doubtless often do, but we should not, as a general rule expect such, as we may not only be disappointed, but even confused.

Suppose we were called to a patient, who had frequent vomitings, great thirst, inability to retain any thing in the stomach, burning pain in the epigastrium, increased

upon pressure, with a frequent, wiry pulse, tongue coated, and red about the tip and edges: we would begin to suspect, and justly too, that we have a case of acute inflamation of the stomach to deal with: and when upon inquiry we find, that the patient, has been exposed to some one of the exciting causes of this disease, we have no longer any cause for doubt, as to the nature of the disease.
But we do not always find the above symptoms, some of them may be wanting, or instead of the frequent wiry pulse, it may be feeble and thready. The vomiting and thirst, are pretty constant symptoms, the pain and tenderness over the epigastrium though generally present, may be wanting. The other symptoms may or may not be present, and vary in degree, according to the cause &c.

The diagnosis is generally simple, we always have enough symptoms present, to determine the nature of the disease; though most of them, when taken singly, would have but little weight, when grouped together, and as very much in forming our diagnosis. Open acute gastritis is not apt to be compounded, with any other disease; but coming on as it sometimes does, in the midst of other diseases, and especially when a low typhoid state of the system is combined, it may be so masked, as to escape observation. When it comes on thus insidiously, it is mostly in miasmatic and typhus fevers, it may be detected, by the short and constrained breathing, with which vomiting and thirst will almost always be associated, while the introduction of any thing into the stomach

will greatly increase the pain; these symptoms alone, after having examined the chest, and finding no mischief there to account for the abnormal breathing, would of themselves be sufficient, to satisfy us of the nature of the disease.

The diagnosis, is for the most part easily made out, from the fact that the disease is almost always caused by corrosive poisons, taken either through negligence, or for the purpose, of committing suicide, and when these produced, its symptoms are so prominent, and well marked, as scarcely to be mistaken.

Causes: The most frequent cause as we have seen, is corrosive or acid poisons, taken into the stomach.

The sporadic, exciting causes, are few, the predisposing causes, may be many.

The disease is not infrequently produced

during our summer months, from large quantities, of iced water, or some drinks, as cider beer &c, taken into the stomach, when the body is over heated and fatigued, and when rapidly sponting with its heat.

Large quantities of food, particularly such articles, as are difficult of digestion, may operate as an exciting cause; when the stomach ~~has~~ is in a state of chronic inflamation or dispepsia. Improper indulgence during convalescence, from acute affections, when the stomach is in an adynamic condition; may produce the disease. Any thing, which tends, to debilitate the general system, may be regarded as a predisposing causes. So also may, whatever produces plethora.

Prognosis. When the disease, has been caused by corrosive, or acid poison, our prognosis should be very guarded.

Indeed we should always be very particular how we give a favourable prognosis in this disease, particularly in the first onset of the disease. As there is a great tendency to death by asthenia, if after the employment of blood letting and other means such as the nature of the case may indicate, or demand, we find the pulse assuming more tonicity & volume, the general symptoms becoming more open and frank, the burning pain and thirst mitigated, the tenderness over the epigastrium becoming less; we might venture to give a tolerably favourable prognosis, I especially when there is no extreme muscular prostration. Even in a case of this kind, knowing the sudden changes to which the disease is liable, we cannot be too particular, in foretelling how the case will terminate.

Anatomical characters:— The morbid appearances, which we look for, after death, from acute inflamation of the stomach, are redness of the mucous membrane, softening, slaughing, and perforation, sometimes of all the coats of the stomach.

Simple redness, of the mucous membrane or of any other membrane, cannot be regarded as unequivical evidence of the previous existence of inflamation. Since it has been ascertained that this redness, may be owing to post mortem changes, or the result of venous congestion. The first may generally be known, by its occupying the most depending parts, the fluids tending to such parts, so soon, as the vital forces, cease to govern them, and they fall under the laws of gravity. The second, occurs most frequently when death begins at the heart,—

The heart having ceased to act, and the arteries contracting upon their contents, and forcing the blood into the veins, they of necessity become engorged.

The redness of inflamation is generally circumscribed, and small in extent, that produced, from the above causes, is generally diffused, particularly over the depending part. When the redness is caused by venous congestion, we find the arteries, to empty, while the veins are engorged. If the redness has been caused by post mortem changes, it may be dissipated, and the stomach made to assume its natural colour, by washing it, and pressing the blood out with the fingers.

As redness, cannot be relied upon implicitly, as an evidence of proexisting inflamation, we must look to some of the other results of this diseased process.

Softening ~~is a result~~ of the mucous membrane of the stomach, and intestinal canal, is much more to be depended on, as it cannot be produced in any other way, except by decomposition, and this is slow to take place in this tissue. Ulceration is sometimes found perforating, all of the coats of the stomach, in such cases when death is not immediately produced, by the contents of the stomach escaping into the closed sack, and lighting up fatal peritonitis, the stomach is found adhering to some other organ.

Treatment. The treatment of simple acute Gastritis, that is, Gastritis produced from common, or ordinary causes, does ~~not~~ not differ from that produced by corrosive or irritant poisons;- excepting the means employed in the latter, to remove the poison from the stomach, or to decompose it, or furnish a specific antidote.

The chirurgicity respects the employment of blood letting. When the disease is seen in its first stage, accompanied with considerable pain, and a quick, or rather a frequent ~~wiry~~ hard pulse; we would not hesitate to employ the lancet. But on the contrary, were the pulse feeble and thready, and the system much prostrated; the employment of general bloodletting, would seem more doubtful, yet even in a case of this kind, I would not hesitate, to try the lancet, if it was seen early, and the unquenchable thirst, and burning pain were present, keeping my finger in the meantime upon the pulse, and watching the effect produced, if it became weaker, and irregular, it should be stopped immediately, by placing the finger upon the orifice; but if on the contrary it was not effected, or became fuller and better developed, the bleeding should be continued, till some effect ~~was~~ is produced.

In using the lancet in this disease, we must not expect to derive the same advantage, as we would in inflamations, of Par-enchymatus organs: though we cannot cut the disease short, we may mitigate the symptoms, and prepare the system, for the better employment of local bloodletting, which then becomes a valuable agent in this disease.
As cups cannot be employed in this disease, we must have resort to leeches, these should be applied over the epigastrium, where the greatest tenderness is felt upon pressure. Some authors recommend the employment of light emmollient poultices, after the removal of the leeches, to encourage the bleeding.
I would prefer the application of one or two. frequently repeated, as I would not only have the satisfaction, of knowing the exact quantity of blood, that I was taking, but would relieve the patient of

the inconvenience and annoyance of the poultice, which, from the extreme tenderness of the epigastrium, is often inadmissible.

When cold water is retained it is the best internal remedy, we can use, even this should not be given in large quantities, lest, by distending the stomach, it should cause vomiting. Small lumps of ice taken into the mouth, until the corners, have become rounded and then swallowed, will be powerfully beneficial. Purgatives should never be given by the mouth, for they are scarcely ever retained, and if retained, add to the existing irritability. When they are indicated, they should be used per anum, being mixed in some convenient vehicle.

If the bowels are not very costive a pint of tepid water thrown up into the rectum, will generally answer every purpose. An enema of from 30 ii. 40 gtt laudanum

with a sufficient quantity of starch, as a vehicle, may be used with considerable advantage when the bowels are loose, as it seems to ~~produce~~ have a tranquilizing effect upon the inflamed stomach. These are the chief means, general and local blood letting, ice and iced water, in small quantity, at frequent intervals, purgative enemata, when there ~~the~~ is constipation, opiate enemata when the reverse. When the disease comes on after a debauch or a hearty meal ~~the~~ emetics may be admissible, if resorted to, they should be used with the greatest caution. I need scarcely add, that if the disease, be caused by the introduction of poison into the stomach, the promptest means, should be used to procure its removal, or render it inert. If during the disease any signs of sinking should appear, or rather, should the prostration and debility, become extreme

We should allow the patient, chicken water beef tea &c, employ warm stimulating frictions to the lower extremities, and inhalations of ammonia.

The diet should be of the strictest kind, indeed during the first day or two the patient should abstain from every thing like food. On the third day we might allow equal parts of milk and lime water, in tablespoonfull doses frequently repeated, to this might be added, gum water, tapioca &c. During convalescence the utmost precaution is necessary, the return to usual diet should be very gradual; as the slightest imprudence in diet will cause a relapse, which is always attended, with greater danger than the first attack. Should the patient escape a second attack, he will most likely fall heir, to chronic inflamation of the stomach

or dispepsia, which is a frequent termination of this disease, and which may last his lifetime.

An Inaugural Dissertation On Diseases of the Liver:

Submitted to the Examination of the Provost, Regent and Faculty of Physic, of the University of Maryland:

for the Degree of Doctor of Medicine.

By

Julius A. Baldwin A.M.
Baltimore Md. Feb. A. 1849.

The liver, occupying, as it does, a central position in the body, in that cavity which, of all the cavities of the body, is most exposed to the influence of foreign substances, and hence as well as from other causes, the most subject to disease; and being nearly surrounded with organs very liable to be diseased, it is not remarkable that it should itself, occasionally be found in the same condition. Being the largest gland in the body, and secreting a fluid, doubtless exceedingly important as well to the function of digestion and nutrition as to the general circulation, it is to be supposed, that when the subject of disease, that disease would be of grave importance, if not to the life, at least to the general system. Being intangible and invisible to the practitioner, its affections not directly perceptible to the patient, its lesions not directly cognizable by pain, nor directly affected by medicines, it is inferrible, that its diseases would neither be easy of diagnosis nor of cure: and it is only by patient observation, and repeated and careful examination and comparison, that a knowledge sufficient to determine its diseases has been obtained.

A correct knowledge of the nature and uses

of the secretion of the liver, would no doubt, be of service, both in diagnosis and therapeutics. This fluid has been differently estimated. Some consider it merely excrementitious. Others, with perhaps more propriety, consider it necessary to the process of digestion. In proof of the former, we are cited to its poisonous effects upon the system when not secreted, and to the analogy between this and the retention of urine in the system. On the other hand, it may be asked: If it be merely excrementitious, why should it, as soon as completely separated from the blood, be poured directly into a sack filled with nutritious substances, to be triturated with it, and completely mingled, while that substance is being macerated sufficiently to enter the circulation for the nourishment of the general system? Why empties into this sack, to be thus mingled and again separated in some way, and passed the whole length of the intestinal tube? and not rather into another fold of that tube, equally near to the liver, and much nearer the termination of the canal?

The bile has been thought an irritating cathartic. But is there not reason to think that its irritating qualities depend principally upon the irritability of the alimentary canal? Judging from the composition and its general characters, and from analogy, may we not rather consider it a real tonic, acting upon the canal as other tonics do? that if the

canal be irritated by disease and inflammation, then it increases that irritation? but otherwise, ordinarily giving tone and vigor to the coats of the canal, promoting their healthy action, and thus invigorating the whole system and, in case of flatulence and consequent diarrhoea, acting as a check to the disease?

Whichever view we take, of of the nature and objects of this secretion, it seems to be all important that it be regularly carried on: for, with the first view, it is poison out to the system: with the other, digestion and nutrition cannot properly take place without it.

To the digestive system appears to be assigned a certain duty in the economy, and to it are furnished the materials for the accomplishment of a given result. Not being sufficient to accomplish it unassisted, through its circulating system it furnishes the liver with material that it may aid in this important work. The liver receiving the material, extracts from it the necessary substance, which it keeps in store. At the very time when it is needed, it pours the substance into the receptacle, where now the process of digestion goes on with vigor. Thus, by a sort of agency and subagency, the general system is daily supplied with nourishment, year after year. While this work is thus harmoniously carried on, the whole system is in peaceful action. But if one of these agencies should become disordered, the other is very liable to become so too. Frequently

both become deranged, and it becomes a question: whether the derangement of the liver produces that of the digestive tube: or whether this produces that of the liver: or whether they both proceed, equally and directly from some other independent cause!

The liver may carry on the process of secretion when it is disordered; or the disorder may be of such a character that the secretion will not take place. When it is carried on, there may still be abnormal conditions. There may be too little bile secreted; or there may be too much; or, being neither too little nor too much, it may be vitiated in quality.

If there be too little, it may arise, from a deficiency in the blood, of the matter constituting bile, from a lack of energy in the secreting apparatus, from some nervous disqualification, or perhaps from some abnormal condition of the circulation so that the blood is not brought into sufficient contact with the secreting apparatus. Again, if there be too copious a secretion, we are necessarily led to conclude, that a superabundance of the substance exists in the blood, or that too great a ratio of the whole bilious matter is extracted. In the third place, if the bile be vitiated in quality, the blood must itself be in an abnormal condition, or the liver must take from it some substance which does not belong to healthy bile, or fail to take away some element or elements which go to constitute bile. There may occur a hemorrhagic condition of the organ; and in

that case, there might be thought both an excessive and a vitiated secretion, even though the real secretion be normal. The bile is liable to become degenerated so as to be almost white, or it may be yellow, brown, green, or black. It may become thinner and more fluid than common, or so thick as not to flow at all. It is subject also to stony depositions, of various sizes up to the size of a pigeon's or hen's egg, and varying greatly in number up to hundreds. These may be formed in the tubuli biliferi, in the ducts, or in the gall bladder.

The secretion of bile may take place regularly, and, so far, all be healthy; and yet excretion into the duodenum not take place. This derangement may depend, as is thought, upon some state of the nervous or mental system unfavorable; upon spasm of the gall ducts, causing constriction; upon atony of their muscular fibres, (supposing them to possess these fibres,) so that expulsion does not take place; upon some peculiar state of the duodenum not allowing a free passage to the bile; upon the denseness of the bile not being capable of flowing; upon the presence of concretions, or upon the pressure of some diseased and enlarged neighboring organs, as by the enlargement of two little absorbent glands in the capsule of Glisson, one above, the other just below the junction of the cystic and common ducts, causing the complete closure of the ducts; or upon the entire obliteration of these ducts from the long continued use of alcoholic liquors.

Most of the difficulties now mentioned, come under the head

of functional or dynamical derangements. But besides all these changes, the liver and its appurtenances are liable to important structural alterations. And perhaps the simplest of all is, Congestion. It is liable to be engorged with blood, causing more or less enlargement of the organ. This may result from asphyxia, as in child-birth, from valvular disease of the heart impeding the flow of blood along the vena cava, from obstructions in the vena cava itself, or from obstructions in the portal ramifications, or in the hepatic veins.

These causes are mechanical. But congestion may also result from an increased action of the vascular system, constituting what is called active congestion or determination of blood; or there may arise congestion from diminished vascular action, as in scurvy, which is called passive congestion.

A peculiar state of congestion sometimes occurs, giving the liver a softened consistence, so that it resembles a clot of blood, and resists the finger applied to it, little more than a clot of blood, or a mass of jelly, being easily torn or broken down. A mottled appearance is sometimes seen, of red, yellow & white, which has led to the belief, that the hepatic and portal capillaries, are each, independently, subject to congestion. Others again, have supposed that there are two distinct substances composing the liver, and that the mottled aspect is owing to one substance being congested while the other remains in its natural condition.

An opposite state of the liver is sometimes seen. When the general system is suffering from anemia, the liver partakes of the general disease, and presents a pale appearance. This aspect of the liver is seen in phthisis. In this disease, moreover, the liver is fatty, and sometimes affected with tubercles.

Congestion produces, of course, more or less enlargement of the organ, causing it to encroach sometimes upon the cavity of the chest, sometimes upon that of the abdomen, and sometimes upon both. It may soon resume its natural state, or go on to inflammation: or there may result extravasation of blood; either into the substance of the liver, which some designate apoplexy of the liver; or into the billiary tubes; where the blood may be mingled with the bile, forming dark coagula, or pass along the ducts into the intestinal canal, to be mingled with the fæces, forming dark stools.

Inflammation may affect the liver variously; attacking different tissues - the serous coat, the parenchyma, the billiary tubes, ducts, and cyst. The bladder and ducts, or their mucous membranes, may be the seat of inflammation which may go on to ulceration; and this may proceed so far as to perforate the various coats of these organs into the peritoneum, pouring out a large quantity of bile, producing sudden death. Inflammation of the ducts may arise from inflammation of the duodenum by continuity, from inflamma-

tion of the substance of the liver, from the irritating influence of pus or blood poured into them from this organ, from the effect of gall stones, or from bile being long contained in them and becoming thickened by absorption of the fluid.

Inflammation of the serous covering presents a very acute form of hepatitis. The parenchyma is perhaps most liable of all to be inflamed, yet this is generally of a less acute character. This may succeed to dysentery or diarrhoea, or intermittent or remittent fever, or some other disease. As a primary disease, it would give the patient a much better chance of recovery than when it comes as a secondary disease when the system is already broken down with a previous disease.

Inflammation may terminate in resolution, in the effusion of serum forming œdema, or in the effusion of coagulable lymph, or in the effusion of pus. If there be an effusion of serum, causing enlargement, the peritoneal coat may, from unequal pressure, participate in the inflammation, but the serum will probably be absorbed, and the prognosis will be favorable. With the effusion of lymph there will result induration and enlargement. This event occurs in cases of long continued inflammation. But the most serious of all terminations of inflammation of the liver, is the effusion of pus into the substance of the liver, with the consequent formation of abscess. Abscesses may exist deep in the substance of the liver, which is denied by some, or they may be near the surface,

or between the parenchyma and the serous coat. There may be great variety, as to number and size. There may be several of the size of filberts, or one alone may be as large as the organ itself, or the organ may increase greatly in dimensions and in density, at the same time that the abscess goes on increasing.

When an abscess is formed, the question presents itself; whether the matter can be absorbed, and the abscess thus disappear? Some entertain the opinion, that it cannot be absorbed and taken up again into the system. Others again in speaking of abscess of the liver, think that the matter is sometimes taken up by the veins, and evacuated by the kidneys or lungs: and there seems reason to believe, that in a vigorous constitution this might take place. When abscesses do not disappear by absorption, they may open into the ducts or cyst, and be discharged with the bile into the duodenum; or seeking the surface, they may, by enlargement, so stretch and irritate the serous coat, and increase its pressure against the adjacent parts, as to cause it to take on inflammation, and, by a deposition of coagulable lymph, to form adhesions to these parts. These adhesions may attach to the duodenum, colon, stomach, or the abdominal walls; in any of these directions the abscess may be discharged, and the patient may survive.

Or there may be adhesion to the diaphragm, and the matter be discharged into the pleural sac or pericardium: or, if the base of the right lung be involved in the inflammation and become adherent to the diaphragm, the ulceration may proceed to the bronchial tubes, and the matter be expectorated: or, without adhesion, the matter may be poured into the peritoneal sac. In this case, as well as when opening through the diaphragm, the life of the patient would probably be sacrificed: yet if the quantity of pus be very small, it might not prove fatal. Specially if the general health of the patient be not much reduced. Or, the abscess may cause no adhesions, but continue its seat deep in the parenchyma, and, softening, and contaminating the surrounding substance by infiltration, the powers of life may become exhausted, and the disease prove fatal.

The liver is also liable to ulceration, as some think, independently of abscess - a sloughing away of its substance into some adjacent cavity, either with or without adhesions. Abscesses are however much more frequent: they are also sometimes furnished with a false or pyogenic membrane forming a sack in which they are inclosed.

Sometimes cysts occur without any deposit of pus, but filled with serum, or with a species of entozoa called hydatids. These cysts are liable to

suppurate and discharge their contents into the abdominal cavity, or into any other cavity adjacent where adhesions have formed. They may be imbedded in the substance of the liver, or may be near its surface. There may be two, three or four at the same time.

Another degeneration of the liver, which, though not very common, is, when it occurs, of a most grave character, is cancer. This may occur either as a primary or a secondary disease. It may occur in the liver when no other organ is thus affected, and carry off the patient: or, it may occur simultaneously with the same degeneration in other organs: or it may appear subsequently to those in the eye, breast, stomach, mesentery, kidneys, or testes. The fungus hematodes may attack the liver and prove fatal, without affecting in a similar way, any other organ.

Cancer may attack a single point, and spread consecutively by contiguity, or it may attack several points at the same time, leaving the intervening substance healthy. The number of points where this degeneration takes place, may vary from 1 or 2 to several thousands; and the size will generally be inversely as their number, from that of the fetal head at birth, to that of a millet seed. These formations may have various characters, as melanotic, encephaloid, hematoid, or scirrhous. They may exist either in the parenchyma, or in the billiary bladder or tubes.

This disease may cause an enlargement of the organ to fifteen or twenty pounds besides the weight of the malignant growths. Or there may be atrophy and induration; and the induration may proceed to such an extent as to check the portal circulation, causing ascites; or by its unyielding pressure upon the excretory ducts, to close them and produce jaundice. Cancer may proceed from the internal surface of the left curvature of the stomach, through its walls to the left lobe of the liver, and, adhesions being formed, may proceed eating away layer after layer of this organ which now serves as a part of the superior wall of the stomach.

The liver is liable to be ruptured or lacerated, as by a blow or fall which may not be sufficient to produce any external wound, nor any very remarkable appearance of the skin. If the peritoneal coat be at the same time ruptured, with an extensive wound of the parenchyma, there will be an effusion of blood, and probably of bile into the abdominal cavity, occasioning peritonitis and death. The billiary cyst and ducts, are liable to be ruptured by the same means, and at the same time. In this case the bile will assuredly flow into the cavity of the peritoneum, and the patient die.

The question may arise: What in these cases, caused the death of the patient? Is it the shock to the system? Or is it the continued deleterious influence upon the peritoneum?

Or is it the constant drain of the bile from its ordinary channel? Probably all these have a share in the production of the mischief: but no doubt the greatest mischief arises from the peritoneal inflammation supervening.

Besides rupture, the liver is sometimes incised, or punctured, or lacerated, or injured with gunshot wounds: none of which, though very perilous, is necessarily fatal, especially if small or superficial. But wounds penetrating deeply into the substance of the liver are very liable to prove fatal, resulting from the shock to the system, from the hemorrhage, from the impediment which the organ finds in discharging its functions, from the suppuration succeeding, and from the peritoneal inflammation resulting.

Causes.

Various are the causes which tend to the production of hepatic diseases. There are causes which tend to the production of disease in general, and those which decide the disease to fasten on the liver. All those causes which depress the general system, have also an influence upon the liver. The influence of climate, as affecting the general health, has no doubt much to do with the production of liver disease. Where the temperature is high for a considerable part of the year, and where in addition to this, the atmosphere is habitually moist, diseases of the liver are common

There seems to be a close connection between the skin and the liver: so that when the skin, by the influence of long continued heat or sudden cold, is caused to cease the exercise of its secreting power, the liver is more or less affected. Long exposure to the sun's rays then, or a sudden check of perspiration, may be fruitful in mischief to the liver.

The habits and occupations of life, have much to do with diseases of the liver. Those whose occupations are sedentary or confined, who get little fresh air but mostly confined and impure air, as convicts in prison, and those long subjected to the atmosphere of a hospital or other building or place of confinement, insane persons who have been long confined, and women whose occupations are those of confinement, are predisposed to liver disease.

The influence of diet is considerable. Animal food in excess, it is thought, furnishes abundantly, that constituent of the blood, which is necessary for the elimination of bile. The fat goose liver, so highly esteemed by the pamperers of the belly, is produced, by the confinement of a healthy goose, in a close, dark box, of dimensions too small to admit of the animal turning himself, there feeding him on cornflour and a little oil, giving him water mixed with charcoal, for a month; when his liver is so enlarged, as to weigh two or three pounds. The influence of light, in keeping up the tone of the

system, though not fully understood, is nevertheless thought to be great. The fatty liver of human patients, is perhaps produced in a similar way; by a state of things and circumstances tending to depress the general health - lack of light, lack of pure air, lack of exercise, lack of clothing, exposure to sudden changes from warm to cold, exposure to cold and moisture, or heat long continued, a state of anemia, depression of the system and of the mental energies and enjoyments.

The influence of mental emotions is of considerable importance, especially in the production of jaundice. And, on the other hand, affections of the mind are much influenced by disease of the liver. Patients affected with these diseases have sometimes harrassing fears utterly unwarranted by the symptoms, being depressed, listless, hopeless, uninterested, yet sometimes detailing at great length their disease, without being satisfied with their own description.

Dr. Beaumont, in experimenting upon the wounded soldier St. Martin, observed that after a fit of violent anger, the juice of the stomach was considerably tinged with yellow bile. The strong passions may also, as is conceived, affect the structure of the liver.

The influence of the nervous system, in producing a state of jaundice, is generally admitted. Epilepsy has been thought capable of producing even organic diseases of the liver.

Injuries of the brain especially, are generally followed by diseases of the liver more or less grave. This cause may produce jaundice, inflammation, abscess, and even cancer.
Injuries from external violence on the region of the liver, may produce inflammation, abscess, or serous or hydatid cysts.
Inflammation of the liver may lead to the formation of gall stones; and gall stones, on the other hand, may by closing the passage of the ducts, and thus retaining the bile, produce inflammation or other disturbance of the liver.
It is not an unfrequent occurrence for liver disease to follow a course of fever. During the continuance of the fever, the liver becomes softened, either as a consequence of the disease, or as an effect of the medicines, so as sometimes to resemble grumous blood, when pressed with the finger, being little firmer than a clot.
The coexistence of a disordered state of the alimentary canal and the liver, is believed to be common. Hepatitis or jaundice, is not unfrequently associated with dysentery, or diarrhoea, or costiveness, or cholera. Which organ has the precedence in the state of disease, is not at all times easy to decide. It is common to attribute the disordered action of the canal, to disorder of the biliary organs. But may we not suppose that in some instances, at least, the disorder of the liver is a consequence and not a cause, of the unhealthy action of the intestinal tube? Suppose the bile to be tonic in its effect on the intestinal canal: it is easy to conceive, that in a case of atony of the bowels, or inactivity

without inflammation, it might produce a healthy contractility of the muscular fibres producing the peristaltic action, and thus operate as a gentle aperient. Or, the torpor might be so great, that the tonic effect of the bile would be insufficient to move the bowels, and even tend to increase the costiveness: and, this, not because of any natural astringent power of the bile to produce this result independently, but as the result of disease previously existing in the intestinal tube. Or in a case of progressive inflammation resulting originally from the irritating effects of feces long detained in the canal, might not the canal, when at length a passage is produced, be incapable of retaining the nourishing matters long enough to derive that nutrition from them; and thus, a state of diarrhoea or dysentery result, from original torpor and sequent inflammation produced without the direct agency of the liver? In this case, the tonic effect of the bile would perhaps only increase the difficulty, until some counteracting agent be administered.

Again, admitting the blood from the vena portarum, to be the blood from which the liver takes its secretion; suppose the intestinal tube to be the seat of active inflammation: would not the blood coming directly from these inflamed parts, be of such a character as to irritate and inflame the liver, in its effort to perform its functions upon this as upon healthy blood? This certainly seems a rational conclusion.

Again, if the duodenum be the seat of inflammation, might not the outlet of the choledoch duct, be so tumefied by the inflammation, as to be an impassable barrier to the flow of bile into that seat and if so, would not inflammation of billiary passages be the most probable result? Or might not the inflammation traverse, by continuity, the whole length of the common duct, and its branches, and finally into the ramifications? If these premises and deductions are correct, it is conclusion, that diseases of the alimentary canal, are sometimes productive of billiary derangements.

Valvular disease of the heart, asphyxia of the lungs acting back upon the heart and damming up the circulation of the vena cava, obstructions of the vena cava, vena portarum, or hepatic veins, may produce congestion, and finally inflammation.

The use of alcoholic drinks, is another source of billiary disease. The ducts have been found sealed impassably, or entirely obliterated, in the post mortem examinations of drunkards; and this condition was attributed to the free use of alcohol. It is thought that alcohol exerts a deleterious influence upon the liver in various ways for the production of disease.

Mercury, is thought to be fruitful in the production of hepatic disease. Jaundice is a common result of the long continued use of mercury, as exhibited sometimes in the cure of syphilis. Malignant cancerous growths, or hepatitis

in its various forms, may also succeed to the use of mercury. The reason of this seems to be, that the liver, being the great depurator, takes up foreign bodies circulating in the blood, and thus becomes the subject of irritation which other parts of the system escape; and this is shown in examinations, in which the liver has been found to contain a much larger quantity of mercury proportionally, than the blood.

Symptoms.

Of the various symptoms indictative of hepatic derangement, pain, is, at least to the patient, the first: and, according as it is sharp or dull, transient or permanent, circumscribed or extended, we decide in some measure, the seat and character of the disease.

The pain may be confined to the region of the liver, or may manifest itself in almost any part of the body. In the passage of gall stones along the ducts, the pain is both an aching, constant pain, and a sharp, lancinating, intermittent. This pain, although intense, one of the most exquisite to which the human frame is subject, is nevertheless, not so dangerous as some derangements with more mild symptoms. In a scrofulous patient, there may be a fatal disease of the liver with very little pain. In inflammation the patient lies on the back, with thighs flexed to avoid pressure of tunic muscles, but the spine curved to the right for some reason, unless left side is diseased.

The pain attendant upon inflammation, is in general less severe than that from the passage of calculi. Yet when the serous membrane is the seat of inflammation, sharp,

stitching pains may be experienced. This pain, however, may be distinguished from that of gall stones by the concomitant symptoms. The febrile excitement in inflammation is manifest: whereas, in the passage of gall stones, although the pain is so intense as to cause free perspiration, and is attended with great sickness and vomiting, yet the pulse seldom rises to a hundred. In inflammation, the pulse may rise much higher, without severe pain. The difference then in the intensity of the pain, and the difference of febrile action, shows the difference between the passage of gall stones and inflammation, and also between inflammation of the serous membrane and the substance of the liver. The pain attendant upon suppuration, is a throbbing or pricking sensation. Any one of these states of the liver may sometimes be present without subjecting the patient to pain: or the pain may develop itself only under pressure: yet when gall stones are present, pressure is not apt to develop pain.

Pains are not always the same for the same degree of disease in different individuals, nor always in the same position for the same disease. Still, in the passage of gall stones, in whatever part of the ducts the concretion may be, the pain is constantly referred to the termination of the common duct in the duodenum. Hence the pain is felt at the lower end of the sternum, and radiating thence as a common center all over the epigastric region, sometimes darts through the back to the right side.

But hepatic affections produce, sometimes, sympathetic pains, in almost every part of the body. A severe pain may be felt in the right ilium, or right knee or foot. Sometimes both legs are subject to pain. It may have its seat in the navel, heart, chest, stomach, duodenum, right kidney, colon, small intestines, right arm or hand, or under the right clavicle, or in the loins or back, between the lower angles of the scapulae, along the back of the head, muscles of the neck, at the left shoulder, from the ziphoid cartilage, following the mediastinum to the back. But the most common position for sympathetic pain is the right shoulder, on the top of the shoulder and about the scapula. Sometimes the right hand or arm is numb.

Another important symptom of hepatic derangement is enlargement of the organ. And this may be such as to be visible to the eye on inspection, or perceptible to the ear in percussion, or to the hand under palpation. For examination with the eye, it is recommended to stand, at the foot of the patient lying on his back with the parts fully exposed. If there be much enlargement of the liver, there will generally appear a fulness of the right hypochondrium; and the right rectus muscle will be tense.

By percussion, any enlargement upwards may be perceived by the dull hepatic sound distinguished

above the natural boundary, which is between the sixth and seventh ribs; or downwards below its lower boundary the lower edge of the false ribs.

Sometimes the enlargement downwards may be felt projecting below the false ribs, by the application of the fingers to the parts. For this last mode of examination, it is necessary that the hands should be sufficiently warm for the comfort of the patient, and that all abruptness tending to alarm or excite the patient in any degree so as to produce an involuntary contraction of the abdominal muscles, should be avoided: then relax the muscles as much as possible, by flexing the thighs upon the trunk; then elevate the liver with one hand applied behind it, while the examination is made with the other hand.

The liver is liable to be displaced, either upward or downward, by pressure from an increase of the volume of the abdominal or thoracic viscera; and this is liable to be taken for enlargement.

Various tumors are liable to be met with in the region of the liver. The colon may be stuffed. This is less dull in percussion than the liver, and may in this way be distinguished. The gall bladder may be greatly distended, simulating enlargement of the liver or serous or hydatid cysts. From simple enlargement it may be distinguished, by its fluctuation. It may be distinguished from any other cyst by its position, being under the false ribs, behind the rectus muscle.

A serous or hydatid cyst may occupy any other position, and generally will press out the parietes of the abdomen. The great resistance and elasticity of a serous cyst, may assist in the diagnosis. Hydatid cysts may be recognized by their fremissement or quivering. The distended gall bladder is liable to be taken for abscess; from which, however, it may be distinguished by its sudden appearance compared with the slow progress of abscess. Its fluctuation moreover, is manifest from the time of its first appearance, and throughout its whole extent: whereas that of abscess, is doubtful, especially at first, and is only felt in the central part, being circumscribed with a harder substance which gradually subsides to the level and consistence of the surrounding parts.

In congestion or inflammation, the surface is smooth. Tubercles present a surface very unequal, with numerous prominences. Cancers present large uneven masses, raising the parietes of the abdomen: but after softening takes place, each elevation is succeeded by a depression.

The most prominent symptom of dynamical derangement as viewed by an observer, is the yellowness or dingy appearance of the skin. The conjunctiva of the eye sometimes presents this appearance long before it is seen in the skin. This discoloration may arise, either from the bile not being secreted, or from its not being excreted but taken up again into the system.

Or some conceive, that in some rare instances, it may arise from decomposition of the red globules of the blood, independently of diseases of the liver. Or a state of the skin called black jaundice may arise, as some think, from the deposition of putrid matter in the cellular membrane.

A vivid color of the skin is sometimes observable during the passage of gall stones obstructing the ducts. This appearance may sometimes change to a greenish or dark color called black jaundice. Or if, instead of gall stones, organic lesion be the cause of the obstruction, the jaundice may increase for a time, and then gradually lose its vividness, and take on a dark or dusky green hue, with a squalid appearance, which is an extremely serious symptom. If the jaundice be periodic, we may conclude that it arises from the presence of gall stones. In inflammation of the substance of the liver, if remote from the ducts, there may be no jaundice: yet sometimes, in a day or two after the inflammation commences, it may appear in the conjunctiva, and then in a few days move a deep bright color, especially if the disease be severe, and this may be succeeded by a light straw color, which indicates general disorganization of the liver. If the disease be of a chronic character, with change of structure, this light lemon hue is all the discoloration which appears; and this appears in the conjunctiva, some weeks previous to its presence anywhere else.

Sometimes the skin is unusually pale, especially in fatty degeneration of the liver. It is also sometimes affected with a disagreeable, pricking, itching sensation; but this is not felt by every one, even though the general character of the disease be the same.

Another symptom of hepatic affections, are certain derangements of the alvine evacuations. This symptom, though of less value than the others mentioned, may perhaps, in some degree, assist our diagnosis. The stools may assume a variety of complexion, from white or nearly so, to black; all indicative, as is conceived, of billiary derangement. Gall stones are sometimes found in the evacuations, and this may indicate what was the cause of previous suffering; but may not indicate any disease at present existing. If there be obstructions from gall stones, the stools are of a yellowish or brownish white. In chronic disease the stools are variable, but generally lighter than natural. In inflammation, the stools may be light at first, and afterwards attain their natural hue.

The stools are sometimes green; the result, as some conceive, of billiary derangement; but as others think, with perhaps more probability from other causes, such as the use of mercury, or from certain gastric or intestinal secretions mingled with the natural evacuations.

There may be black stools, caused by an excessive secretion of bile, or by hemorrhage of the liver or intestinal canal.

A simple method of distinguishing between billious and bloody stools is proposed: viz. to dilute with water. If the dark color proceed from the presence of blood intermingled with the feces, the color will be changed to red: but if it arise from excessive bile, it will become yellow.
A dark, inky secretion from the intestines sometimes produces black stools. Or, there may be a purulent discharge, secreted by the bowels, attended with evening fevers, and other symptoms leading the practitioner, unless other examinations be made, to suppose that the matter may proceed from abscess. In post mortem examinations, appearances of the feces, supposed to proceed from billiary derangement while the patient lived, have been found in the lower part of the intestinal tube, but utterly wanting in the upper part, - this presenting nothing uncommon. The conclusion is, that these appearances arose not from any derangement of the liver, but from a peculiar state of the lower intestines.
It is thought that diarrhoea, dysentery, and cholera, proceed from billiary derangement, and consequently are indicative of such derangement. It is not unlikely, that in some instances they may proceed from hepatic derangements; and, on the other hand, that they go before, and actually sometimes produce, these derangements; so that many accurate observers are of opinion, that these diseases are no sure indication of hepatic derangement.

Another symptom, of considerable importance in the progress of liver disease, is the dark appearance of the urine. This appearance precedes the dark color of the skin. It is said to assume a color deeper than porter, with a greenish tinge. This dark color of the urine, may be simulated by a diseased condition of the kidney, in which bloody matter is mingled with the urine. But if nitric or muriatic acid, be added to urine mixed with bile, a greenish deposit will appear as a muddy or turbid cloud; but this is not seen, when the like dark color proceeds from blood as the coloring principle. The urine may contain pus, as the result of an abscess of the liver bursting into the kidney, or as a result of renal secretion from the blood, of matter taken up in the circulation from a hepatic abscess. In this case, the urine assumes a white turbid appearance.

The lungs may also, as some conceive, eliminate from the system, the matter carried in the circulation from hepatic abscess. Or, the matter may make an ulcerated passage through the diaphragm, into the substance of the lung, and be expectorated. This is one source of embarrassment to the lungs, liable to occur in hepatic abscess. Or the lung may be compressed by emphysema, from ulceration proceeding merely through the diaphragm and discharging its contents into the pleural sac. Or compression may arise, from enlargement of the liver upwards. The liver may also by its increased weight, in

hypertrophy, drag the diaphragm downwards. In any of these cases, there will be dyspnoea and cough. In a case of ulceration, there will be more or less pleurisy, and the cough will be dry or loose, according as the bronchial tubes are free or involved. In some rare instances bile has been expectorated. The cough may arise sympathetically, where no ulceration reaches the lung and no pressure is communicated.

Ascites may sometimes occur, in cases of tubercular deposit or induration causing an unyielding pressure restricting the circulation of the vena portarum.

Hemorrhage is another symptom of liver disease. This often precedes jaundice. It may occur at several parts, separately or conjointly. Epistaxis, is perhaps the most common hemorrhage, and this may prevail to an alarming degree, so as in some instances to be much more dangerous than the hepatitis itself, proving fatal in opposition to all remedies.

Hemorrhage from the lungs, may be caused by the enlarged liver pressing upon the diaphragm, contracting the substance of the lung, and thus diminishing the space for the circulation of blood sent from the heart. (In some instances this hemorrhage may arise from the pressure of the liver upon the vena cava or portarum.)

There may be hemorrhage from the stomach and intestines: or, in some instances of scirrhous liver, it may gush out simultaneously, from the stomach, gums, nose, navel, and with the stools.

In severe cases of jaundice from congestion, there will be hemorrhage from the lungs and intestines. If the jaundice arise from organic deposit, there will be ecchymosis in various parts: and if from inflammation, there is an excessive tendency to hemorrhage, which comes on early in the disease.

Fevers and chills, are another symptom of hepatic affection which is sometimes experienced. Often, there will be horripilation or chill at the commencement of the disease, but specially is it likely to be present, in the passage of gall stones, and to be periodic. Suppuration is generally attended with coldness or rigor. If the surface of the liver be diseased and inflammed, the symptoms will be more marked than when the disease is more deep seated. In cases of a chronic character, there occurs as a common symptom, great redness about the cheek bones, and a burning heat of the palms of the hands, of the soles of the feet, of the head and cheeks, increasing after meals and towards evening, with restlessness during the night, the skin dry, the pulse quick and irritable. When there is extensive abscess, or formation of pus, there are hectic symptoms, cold, clammy, night sweats, emaciation, diarrhoea, anxiety, debility, and depression. This is especially the case when large quantities of matter are taken up into the circulation. In chronic cases, there are exacerbations, the symptoms growing worse and worse.

The appearance of the blood in liver disease, as

compared with its appearance in pneumonia, is very marked. In pneumonia, the color of the coat is white, but if tinged, it is with red. The coat is thin, but there is a remarkable cupping. In hepatic affections, the buffy covering is darker than in pneumonia, and the surface is yellow. The coat occupies the greater part of the clot, and is not cupped. If it be cupped, we may conclude that that condition results from a complication of pneumonia with disease of the liver.

There seems a peculiar connection between the brain and the liver. If the brain be the subject of injury, the liver generally becomes, either functionally, or structurally deranged. On the other hand, in diseases of the liver where jaundice occurs, the brain is liable to be suddenly affected with a state resembling congestion or apoplexy, producing coma, and speedily terminating in death. Such patients if nervous especially, are therefore to be carefully watched, for fear of such a result.

Patients with hepatic affections are subject to great mental depression and despondency - more than any appearances of the disease would justify, with a listlessness and lack of relish for enterprise and social enjoyments. At the same time that an unwarrantable alarm as to their condition exists, they seem to have just as unwarrantable confidence in the power of medicine to cure them, provided they could only be so fortunate as to hit upon the language to convey correctly to the mind of the physician, a knowledge of their feelings and disease.

Treatment.

All our previous investigations concerning the pathology, character, causes, and symptoms of disease, would be useless, unless they point to the treatment as their object. They are the foundation this the superstructure. As they are subject to great variation, so the treatment must be varied; and yet there is generally, considerable uniformity. The patient may present a surface blanched, or discolored and suffused with bile: he may be in a febrile, or in a chilly state: he may be suffering intensely or slightly; the symptoms may be moderate or alarming. These various circumstances may vary the decision as to the treatment.

If there be extreme pain of a periodical character, indicating gall stones in the ducts, the indications would be, to relax the system, remove the spasm, relieve the pain, and facilitate the passage of the concretion. If there be jaundice without pain, it may be the result of torpor, without the presence of calculi or inflammation. The indications then are, to increase the tone of the system, to stimulate the organ, and improve the general health. Or the jaundice might arise from an inspissation of the bile by the absorption of the more fluid parts, preventing its excretion into the duodenum: in which case, costiveness or diarrhoea may ensue. The indications would then be, to relax the tissues, and bring about such an action of the abdominal muscles

as to force the bile through the ducts, into the duodenum, at the same time facilitating the process, by an increased secretion thus thinning the dense mass and lubricating the passages. The warm bath then, purgatives and emetics, are indicated. If there be jaundice, at the same time that the stools are high colored, whether from the excess of bile or from active hemorrhage, depletion is indicated. If from passive hemorrhage, the indication is, to strengthen the system by tonics - cold bath, a proper regimen, taraxacum. If there be much febrile excitement, the antiphlogistic measures are to be used.

(The great remedies in diseases of the liver are, careful hygiene, regulation of diet, exercise, and occupation, tonics, laxatives, purgatives acting upon the upper part of the alimentary canal, alkalies to prevent the formation of gall stones, and perhaps some specifics.)

(When abscesses have formed, or when tumors arise from other causes, as the formation of serous or hydatid cysts, or when the gall cyst itself is distended, the indication is, to bring about a discharge of the fluid matters.)

In the passage of gall stones, the most readily administered remedy, is an emetic, to relax the system, and thus remove the spasmodic contraction of the ducts, and, by causing contraction of the abdominal muscles, to expel the calculus, and by its sedative action also to relieve the pain. Yet this remedy is not without danger, since, by the violent contraction of the abdominal muscles upon the gall bladder

distended with bile, as it is likely to be in these circumstances, while the concretion prevents its being discharged, the walls of the cyst are liable to be ruptured, and then, effusion of its contents into the peritoneum must inevitably result, and this will prove fatal. In these cases, as in some other disorders of the liver when no such condition of the cyst, nor any inflammation exists, emetics, as Ipecacuanha, Tartar Emetic, and perhaps Tobacco, are valuable remedies.

Purgatives are also beneficial, as giving action to the duodenum, and thus facilitating the passage of any contents of the ducts. Whether, by its action, it brings the two ends of the passage through the duodenal walls more nearly in apposition, which is probably true, and thus makes a more free passage: or whether any contents of the duodenum excite the mucous membrane to a more copious secretion, and by thus lubricating the membrane, the same lubrication extends, by continuity, into the ducts, and thus facilitates the exit of any contained matters, is a question, the answer to which, is more a matter of conjecture than of certainty.

The use of anodynes or antispasmodics, as opium, or tincture of Castor, may also be beneficial. In the use of opium, there should be no limit short of relief. One grain may be given every hour until relief is obtained, or laudanum may be substituted.

The warm bath, at the temperature of 100 or 110, may be used,

till faintness supervenes. This is a valuable remedy - perhaps the most valuable of all remedies. Warm fomentations may be used as adjuvants or substitutes. Free bleeding from a large orifice, is also resorted to. Tobacco injections have proved beneficial. Pounded ice applied to back and belly, has been used to advantage in quieting pain.

Alkalies are thought to be useful in preventing the formation of calculi, and perhaps in dissolving them when formed. A compound of sulphuric ether 3 parts, Spirits of turpentine 2 parts, administered in doses of two scruples, is highly approved as a billiary antilithic.

If there be jaundice, without inflammation or calculi, or pain, a strong purge of Pulv. Jalap. Comp. ℥ 1, Pulv. Scammon. Comp. ʒ ss. may be given, and followed by some mild purgative, as castor oil, and repeated if necessary; the bowels then to be kept free, and chalybeates administered, or a little nitric or muriatic, or nitromuriatic acid given, improving the general health, allowing little animal food, but mostly farinaceous, easily digested food, free exercise, free air, not too great nor too sudden alternations of heat & cold.

When jaundice and dark colored stools, occur simultaneously, showing an excessive secretion, or perhaps, as is sometimes the case, a hemorrhage from the substance of the liver into the billiary passages, or hemorrhage or other discoloring matter from the internal

surface of the intestinal tube, mingled with the feces, giving them a dark appearance; then, gentle purging, and subsequent freeness of the bowels, the purge occasionally repeated, a farinaceous, spare, easily digested diet, free air, little exposure to sudden changes and excessive degrees in temperature, free exercise, and traveling, are important treatment.

In cases of much febrile excitement, and inflammation of the organ, purgatives are especially necessary. These are the great remedy: and here, we must use active treatment. Now, neutral Salts, Sulphates, Supertartrate of Potassa, Jalap, Podophyllum, Scammony, Colocynth, Gamboge, Castor oil, Senna, Magnesia, Taraxacum, and sometimes a little Blue pill or Calomel, with a little Hyoscyamus or opium to quiet the patient, will be the main means for the recovery of the patient.

Diet is also important to be attended to, especially if there be an appetite. Diet is a great means. Starve the patient, give him demulcent drinks, or, when the inflammation is left, give him a little farinaceous food, keep the patient quiet; continue the treatment a long time, lest, if the treatment cease because the symptoms have, the disease return with increased severity.

Blood letting is resorted to, both general and local: cups and leeches to the sacrum, leeches are the better, leeches to the anus, and sometimes to the region of the liver. Blisters and Setons are sometimes used, the former over the region

of the liver, and repeated as often as cured, the latter a little lower. These two means however, are not highly recommended, since they mask the disease from the patient, and thus make him neglect it, at the same time that they do little to cure it.

In chronic hepatitis purgatives are still to be used. Podophyllum, Cream of tartar, Taraxacum, may be used for a few days, then omitted and Senna and Magnesia alternated, sufficient to keep the bowels free, with castor oil, at the same time that tonic doses of Taraxacum are used, or perhaps a little Colombo.

Hygiene is here especially important. Traveling, sea-voyages, horseback exercise, moral means, relaxation from business, cheerful, exhilarating occupations, chalybeate and saline springs, regularity in habits, nutricious diet, Nitromuriatic acid bath or sponging or taken internally or all together, Codliver oil internally.

We have yet to consider some very formidable conditions of the liver. Jaundice, especially in nervous patients, is very liable to terminate in coma and sudden death, without any premonitory symptoms.

But the most dreaded conditions, are the scirrhous, granular, tubercular, and abscess. The treatment of cases advanced to these stages, is similar to that of chronic forms and fatty degenerations: but here there is great reduction of the powers of life:

and the question readily presents itself respecting these morbid depositions; Can they ever be again restored or taken into the circulation, and thus a healthy tissue be left? The rational conclusion, and the common belief, seems to be, that they cannot. Yet if the suppurative mass be small, and the patient otherwise generally healthy, strong, and vigorous, perhaps they might wholly disappear, either by direct absorption, or by a sloughing of the veins circulating through the abscess, so that the open mouths of these vessels may take up the pus into the general circulation, to be eliminated from it by the kidneys, or lungs, or again by the healthy part of the liver. Still it is probable that such cases are rare, if they occur at all.

It is not probable that cancerous or scirrhous and malignant growths, are ever disposed of in this way: nor is it generally believed that any remedies can effect anything more than mere palliation. As to the other derangements now under consideration, absorption, we have reason to believe, is less common than could be desired: and unless some other disposition can be made of such deposits, they must remain where they are, while the watery parts are absorbed away leaving a hardened mass, the surrounding living part becoming healthy, or suppuration and ulceration will supervene and carry off the patient - the last being the probable result. The question How shall abscess of the liver be disposed of? is one therefore of grave import.

By the irritation of the serous membrane from the presence and pressure of abscess, there may be adhesion formed, to the colon, duodenum, stomach, or to the substance of the kidney: into any one of which it may open by its own pressure and ulceration, or adhesions may be formed with the diaphragm, and the abscess open into the pleural sac: or, causing the lung to form adhesion to the diaphragm, it may open into the lung; in which case, if small, and the general vigor of the system good, it might be expectorated, and the patient recover: or, it may open into the pericardium, or it may form adhesion with the parietes of the abdomen, and be discharged externally, and the patient recover: or it may burst internally into the billiary ducts, and the matter be excreted with the bile, or it may burst into the peritoneal sac. The last would likely be fatal. any of the others might be so: the most favorable is doubtful, the most unfavorable is probable; and the only remaining way of discharge, is by an artificial opening. This is proposed, first where adhesions have formed with the walls of the abdomen; in which case, it has the recommendation of high authority. When adhesions are not formed, it is advised to use means to bring about such adhesions, with a view to the operation. Caustic potash has been used upon the skin, to produce irritation, with the design of thus forming adhesion. Some recommend cutting down to the peritoneum in the most proteberant point, and dressing the incision with

a tent of raw cotton for three or four days, when adhesions will be formed. Some advise cutting through the peritoneum. Some advise cutting to it, and using acupuncture. Some cut through it and use a soft suture each side of the incision, sewing the abdominal parietes to the liver and then perform the operation without adhesion.

None of these seems to have been attended with much success, either in causing adhesions, or in saving the life of the patient, although operations have, in many ~~in many~~ instances been performed, with the cannula and with the simple lancet, both with and without adhesions. The want of success is perhaps attributable to the state of wasted energies, and enfeebled, hectic condition of patients in whom abscess exists. Still, we may hope, that, as experience increases surgical knowledge and skill respecting the operation, it may become valuable, in a state of disease which evades all other curative treatment.

An Inaugural Report of Three Cases, presented to the Provost, Regents and Faculty of Physic of the University of Maryland for the Degree of Doctor of Medicine by

James Bond Read
of Savannah
Georgia

Baltimore Feby 1849

Case 1st Pleuro-Pneumonia

Saturday Sept. 23d

John Flaherty, an Irishman, of herculean frame aged 26, has been two months a resident of this Country, and has been for the greater part of this time, employed, at the Steam Saw Mill City Dock. He has always enjoyed good health & has been in the habit of drinking a good deal since he has been in this Country, he has made it customary to go out on a Spree every Saturday night. Was out on one of his usual frolicks to day week and was much exposed to wet and cold. On Sunday morning he felt very unwell, but was not confined to bed, went out to his work on Monday, but was obliged to desist at two o'clock, being seized with a severe chill, which continued about an hour, and was followed by thirst, dry and hot skin, sharp lancinating pain in his right side causing him much suffering in breathing. These Symptoms the pain and difficulty of respiration have been constant since, his bowels have been regular and he has not been under any treatment.

This morning, Saturday the 23d, Our man has a deeply flushed face, injected eyes, dry and swollen lips, hot-skin, pulse soft and quick, numbering Eighty in the minute, his tongue is much furred and dry, he has a great deal of cough, with a little white frothy expectoration. He has the same acute pain, in his right-side, that he was first taken with. Respiration frequent and difficult, thirty in the minute, he experiences much pain on inspiration. Both sides of his chest sound resonant and healthy sonorous ronchi are audible throughout the whole extent of both lungs. I imagine I can distinguish something like fine crepitation, posteriorly in the lower lobe of the right lung. ℞ — Cups to the seat of pain, and of the Sulp: of Quin: gr, iij every two hours. —

Sunday 24th

Pain in the side much relieved by the cups, his still has pain, but cannot define the precise spot. His face, tongue & skin are the same as yesterday. His respiration is quicker and laboured. Has a feeling of soreness and uneasiness throughout

his right side, it seems to annoy him very much his pulse is firm and quick, one hundred and four in the minute. There has been neither exacerbation or remission of febrile symptoms since yesterday upon taking a deep inspiration it gave him great pain in his right side.—

There is a dulness over the lower lobe of the right lung in front and behind upon percussion the rest of the thorax emits a clear barrel sound

Loud and distinct sonorous ronchi, throughout the extent of both lungs, excepting the lower lobe of the right, in this there is some fine crepitation with slight bronchial respiration & increase of vocal thrill,— his cough is very troublesome and very painful, keeping him from sleep, he expec=torates nothing but a little white frothy mucus. Venesection, until some decided reduction of the pulse, discontinue the Quinine — and give

℞ — Calomel. — gr. viij

Ant: et Pot Tart: gr. ij

Pulv: Gum Acac. ℥j, into eight powders one to be taken every two hours. —

VS

Blood was taken to twenty ounces with the effect of relieving his dyspnœa and pain, he was soon in a profuse perspiration and all his febrile symptoms were much abated.

11 o'clock P.M. He says that he feels much better, his skin is cool, but his face is still flushed and his breathing hurried.—

Monday 25th The blood drawn yesterday is much buffed and cupped, the clot firm & tough He had a very bad night, being unable to rest long in one position. His face is flushed, his skin is hot and dry, has a severe frontal head-ache, his tongue is much furred & foul and his pulse is seventy five per minute. Both anteriorly and posteriorly over the lower lobe of the right lung there is dulness on percussion Fine crepitation with some bronchial respiration audible at the same point. Over the surface of both sides of the chest, there can be heard sonorous and sibillant ronchi. cough still troublesome sputa viscid and clear. Continue former prescrip-tion

12 O'clock. M. Fever high with increase of the cephalalgiac symptoms, pulse over one hundred full & rather hard, face deeply flushed, cough and expectoration the same. Fine crepitation increasing in the lower lobe of the right lung. Pill. Ant. et Pot. Tart. gr. j every half hour or hour pro senecta. Soon after the first dose was taken the skin became cooler, a general relaxation of surface was induced, and Flaherty says he feels much better but is much nauseated. 4 O'clock P.M. The Antimony has caused full emesis: his breathing is still quick and hurried and he feels much easier.

Tuesday the 26th

9 A.M. Flaherty slept well last night, his mouth and gums are swollen & sore, he has the mercurial fetor, and is well ptyalized. His cough is looser and not so painful to his side, he spits-up rusty viscid sputa — his skin is cooler than yesterday, his tongue clearer, but much redder than it has been heretofore. Dulness very marked over the lower lobe of the right lung, can distinguish no crepitation, but hear distinct and loud Bronchial

respiration, with Bronchophomy. The Ronchi in both lungs is mixed with some subcrepitant rale His whole surface, face, neck, chest, abdomen, back and extremities are covered with petechiae, exactly similar to those of Typhus fever. Omit the first prescription and give Pff. Ant. et Pot Tart. gr ¼ every hour to be increased to ½ grain.-

10. P.M.. Skin cool, head-ache gone, pulse Eighty, feels better.-

Wednesday 27th. Slept badly last night has, this morning a flushed face, a slight head-ache, a clean tongue with red lips and edges. pulse soft and compressible Eighty five per minute. Cough very troublesome, sputa plentiful red and viscid,- dullness over the lower lobe of the right lung. The other sounds remain the same as when last examined save some slight returning crepitation. The subcrepitant rale in both lungs is so abundant, that one can feel it by palpation, vocal thrill increased over the lower lobe of the right lung.

10. P.M. All his symptoms the same as when

examined this morning, with more heat of surface and a slight acceleration of the pulse Continue antimony.

Thursday the 28th

Our patient rested badly last night; he is unable to remain in one position longer than a few mo= =ments, his respiration is still hurried, his face flushed, lips dry- tongue almost natural, has slight pain on pressure over the epigastrium his skin is not so hot as it has been, slightly moist Has only a slight head-ache, has a good deal of cough attended with pain in his side, and with the expectoration of rusty tough and adhering sputa. There is returning crepitation in the lower lobe of the right lung. The subcrepitant mucous rale is very loud in both lungs obscuring all other sounds excepting the lower lobe of R. lung. The petechiae are still distinct over the whole surface of the body. his mouth is recovering from the effects of the mercury he has taken, he complains of being much nauseated by the antimony. —

Friday the 29th

He slept well last night, has neither pain nor headache-, his skin is moist and pleasant, his pulse soft and tolerably full,- seventy five per minute. Respiration much slower about twenty in the minute. has still pain in the right side upon inspiring deeply. The dulness over the lower lobe of the right lung still continues. In the same position fine crepitation is more plentiful than yesterday, with less of the Bronchial voice and respiration vocal thrill less-, Sonorous ronchi barely audible in both lungs being masked by the loud subcrepitant rale, his sputa is mixed, plenty of purulent looking mucus with the rusty sputa mixed with it. Continue the antimonial treatment as before. 10. P.M Still the same has no pain feels sleepy and easy

Saturday the 30th

Slept well last night, respiration about natural, eighteen in the minute he has

no febrile symptoms-, nothing but great weak-ness and debility. Dulness over the lower lobe of the right lung not so apparent,- in the same lobe the fine crepitation of yesterday is intimately mingled with large course crepitation Neither Bronchophony or Bronchial respira-tion can be distinguished, the vocal thrill is more equal on both sides, no sonorous ronchi in the lungs, nothing but the subcrepitant rale of Bronchitis, sputa viscid and purulent, no tinge of blood. cough much freer, and does not give so much pain.-

Sunday the 1st Oct.

Flaherty rested well last night his decubitus is good, he lies on either side indiscrim-inately, he complains of no pain, says that he feels quite well, his pulse is natural but weak his skin cool, his face not so much flushed but still dusky. There is less dulness over the lower lobe of the right lung the natural respiration is returning mixed with fine crepitation ~~in both lungs~~ cough loose, expectoration viscid and ropy, Large crepitation

in both lungs. ℞. Infus Seneca, to drink throughout the day and discontinue the antimonial treatment

Monday Oct. 2nd

There is no great alteration in the patient he looks brighter, breathes easily and not too fast, his bowels are open once in the twenty four hours &c. –

Tuesday Oct. 3d

Looks well, sleeps well, says that he is well, there is hardly any dulness, his breathing is natural, The respiratory murmur is healthy and distinct throughout the whole of both lungs. There is some slight fine crepitation in the lower lobe of the right lung. Cough is easy and does not give any trouble, he expectorates only a little white mucus Petechiae have disappeared. –

Oct. 4th, 5th and 6th

Still on the mend, gaining strength daily the respiration in the right lung is perfectly natural, upon a deep inspiration, he has a sensation of pain opposite the seventh rib on the right side, and there is also some little fine crepitation audible. –

Oct. 7th. Discharged cured, but having still some slight cough, and being much debilitated. –

The patient an Emigrant, lately arrived in this country, and during the greater part of this time a workman in a place most fit for the generations of malarious poison, was taken with a severe chill after exposure to cold & wet whilst much heated & excited on a debauch. This was followed by a severe pain, heat, thirst, &c. these symptoms; & the neighbourhood he was living in, induced the suspicion that he might be suffering from some malarious fever complicated with an inflammation of the Pleura. His difficulty of respiration was caused probably by the congestion of the lung induced by the miasmatic law under which he seemed to be labouring, which always produces some congestion of the internal organs. Observing carefully the effects of the remedies administered and noting diligently the new symptoms that presented themselves, it was soon obvious that the most essential characteristic of paludal fever, periodicity, was absent.

And moreover upon a minute examination certain signs were discerned which clearly proved our first diagnosis to be wholly incorrect There was a gradual & constant increase of dyspnoea, of the pain in the side, and the dif=ference in the character of the pain, it being dull and diffused, these with the increased cough & expectoration, and the dulness over the lower lobe of the right lung, both posterior and anterior on percussing, produced by the increased density in the subjacent parts, and the diminished quantity of air in the pulmonary tissue, This dulness is pathognomonic of no particular disease, but is an important aid in connexion with other signs, in forming a correct diagnosis

We also found upon auscultating fine crepi=tation in the lower lobe of the right lung, owing to the entrance of air during inspiration, into the terminal branches of the bronchial tubes whose sides are left adherent by tough & viscid mucus in expiration, and the entering air seperating these adhering surfaces produces

this sounds, similar to that of crumpling parch=ment, This sound indicates with certainty the engorgement of the lung. And in connexion with the dulness, and his excited arterial system and heat of skin, leaves no room for doubt as to the true nature of the disease. In addition to these, we have other signs less marked, but owing to the same cause. We have a slight increase of vocal thrill, caused by the better conducting medium of the inflamed & consequently engorged tissue, In both lungs, excepting the small portion already spoken of, loud sonorous ronchi can be heard. This sound owes its existence to the inflamed and congested condition of the mucus membrane lining the larger bronchial tubes, and thereby diminishing their calibre. These sounds prove the existence of bronchitis, as the only other possible cause for their existence is the alteration of the size of the tubes, from some external pressure & of this the attack being acute, we can have no suspicion.

We still have a complication of Pleuritis.
Diagnosis.- Pleuro Pneumonia in the lower lobe of the right lung, with extensive Bronchitis in both lungs. This opinion of the Inflamatory condition of the lungs is farther consolidated by the buff and cup on the blood drawn by venesection, which, though it may occur in other, than inflamatory conditions of the system still in connexion with other symptoms is a sign of some importance. Even in this Stage of the disease, we have not the rusty sputa so pathognomonic of it; we have only the white glairy mucus, which is exists with in the beginning of Bronchitis. The appearance of the petechiae of Typhus on his skin, may easily be accounted for. When we consider that our patient is lately from Ireland and that it has not been more than two months since he was a passenger in one of those crowded & filthy emigrant vessels, which so often bring the contagion of Typhus to our shores, and which are sufficient in themselves to produce

that vitiated condition of the blood, which is the essential lesion in ship fever. In a few days the inflamed lung passed from the first to the second stage as indicated by the complete dulness, the total absence of the vesicular murmur, and the bronchial respiration. These two sounds may be thus accounted for. In health we have two sounds one caused by the air entering the larger bronchi, the other by its passing from these, into the finer tubes and terminal cells; this is much the louder sound, completely obscuring the first. Now when the lung or a portion of it is hepatized, the second sound of course cannot be heard as the air can no longer enter into the vesicles and then we have the first unmasked and audible. We have moreover that peculiar clearness and distinctness of the voice entering as it were the Ear of the auscultator called Bronchophony. The Bronchitis is also passing through its changes from the first or congestive, to the second or secreting stage which change is made evident by the

sub-crepitant mucus rale. Here for the first time we have the tough rusty coloured viscid pneumonic sputa, caused by the intimate co-mingling of the effused blood in the air cells with the mucus secreted from their lining coat. Upon our next examination we find dullness & some fine crepitation returning in the inflamed portion of the lung, owing no doubt to the absorption of the blood & serum congesting the part; there is also less of the vocal thrill, less of the Bronchial respiration & voice, attributable to the same cause as the last. The bronchitis has reached the stage of profuse expectoration, the sputa of both diseases, the rusty and the muco-purulent are mixed together. Upon our next examination we found still less dulness, less vocal thrill no bronchial respiration or voice, a little fine crepitation mixed with coarse, and some natural respiration. This portion of the lung is now returning to its natural condition. The case progressed gradually to health, fine crepitation decreasing & natural respiration returning. He was at length discharged cured with only a slight pleuritic adhesion. The prognosis in this case

was serious from the first; and rendered much more so by the Bronchial complication. The treatment has been mentioned already in the history of the case, the reasons for using it are so obvious that it is not necessary to trespass on your time. —

James B. Read.

Savannah
Ga.

Case 2nd "Remittent Fever." Collins

Collins, is an Irishman, aged 18, has been a resident of this Country for two months, and has been occupied during this time working at the Washington Ore banks, a nidus of malaria. Has been unwell since Saturday August 26th he has had no chill, his fever has been continuous, with no remission, has never felt worse at night, has had no exacerbation says that he always felt "powerful dry". Has a typhoid countenance, face dusky, eyes bright, mind clear and lucid, tongue much coated and furred, lips & teeth covered with sordes, frontal headache, skin hot and burning, to the touch. Abdomen tympanitic, no pain in right iliac region on pressure, none in epigastrium, pulse eighty five small and weak, no diarrhœa. There has been no epistaxis, His friends state that he has been delirious ℞ Sulph. Quin. gr. ij every two hrs. and observe the effect carefully- 2. P.M. Has taken since morning twelve grains of the sulphate-, skin cool pulse the same but fuller. Has headache, in fine he is in a state of complete remission. Continue former prescription

August 31st There has been no return of fever face brighter, tongue much cleaner. He rested well during the night; has noise and singing in his ears, feels weak but well. Cont. Quin. in less frequent doses.

Friday Sept. 1st There has been no return of febrile symptoms, pulse 84. natural. Headache very slight, bowels constipated. Off. Olenum Ricin ℥ij.

Sept. 2nd Discharged cured.—

When this patient entered the house, it was doubtful whether his disease was typhoid, or of malarious origin.- The continued fever, the want of remission or exacerbation, the sordes on his tongue and lips, the tympanitic state of his abdomen, the character of his pulse and the delirium at night all seemed to indicate the existance in him of the typhoid law. on the contrary the malarious spot in which he had been living, whence numbers are daily entering the house-, the active state of his mental faculties, and the want of those symptoms, which are the general prodromes of the typhoid state; make it possible that this might only be a case of paludal

fever which similates in some respects the Typhoid: and this is by no means a rare effect of marsh miasmata, almost all symptoms and all diseases are imitated by it. As there is a probability of miasmatic influence, and also that he may be labouring under some typhoid law, the treatment pursued should be cautiously, to administer Sulp. Quinine, the safest and most certain remedy for all affections of malarious origin or having any thing like periodicity in their mode of action And which should the case be one of Typhoid fever would not be injurious - The almost magical effect of the first few doses, shewed plainly that the former, the malarious fever was the one under which the patient was suffering.
The disease cannot be called remittent fever because there was neither exacerbation nor remission, but merely a continued fever excited by malarious causes. -

Pleuro Pneumonia.- James Watson

Wednesday Aug.st 30th

James Watson, at the age of 36, a stout plethoric man, seventeen years a resident of Baltimore entered the Infirmary this evening. Has been exposed during the last two days and nights to the inclemency of the weather, which has been cool & rainy, says that he is a hack driver and is a sober man. On Monday during the day had a feeling of malaise with slight head-ache, which continued to the next night, tuesday, when he was taken with a slight chill and pain in right side, with increase of head-ache followed in a short time by heat and restlessness. Has this eve=ning acute pain in right side increased by deep inspiration. Respiration hurried, quick and pain=ful. Pain stabbing & cutting as if "a knife were plunged in his side". Pulse full, frequent and incompressible 90, in the minute. Face flushed, and distorted apparent=ly with pain & difficulty of respiring. Slight and dry cough giving him pain in his side, tongue white & furred, no expectoration. Pff. Sinap. to side. Pediluvium

Thursday Aug.st 31st

Watson has passed a sleepless night, & restless and uneasy, continually changing his position in the bed. His face is flushed, dusky, eyes injected, tongue white furred & red on edges. Respiration quick about thirty in the minute. He cannot define the precise seat of pain. In the anterior part of the lower lobe of the right lung there is dullness on percussion with the Bronchial voice & respiration evident on auscultating Anteriorly in the middle lobe of same lung there is fine Crepitation, entirely masking the respiratory murmur. this sign is more distinct at the posterior part of the same lobe and scarcely audible in the lower lobe in front. Very little expectoration & that white and frothy Rpt. Venesec. & observe the pulse. Rpt Prot. Chlorid. Hydrag. viij Ant et Pot. Tart. gr ij. Acac. Gum pulv. ʒj made into 8 powders one to be taken every two hours. Venesection to twenty ounces, with great relief of pain and difficulty of respiration. One hour after venesection pulse 78 & full would bear repetition of bleeding. 4 o'clock P.M. There is a great change in the patients appearance. He breathes easily

and naturally, says that he has neither pain nor uneasiness. Has a terrified expression of coun=tenance, - is afraid of being killed. Has been wandering about the room, eyes are wild and incessantly moving, tongue tremulous, cannot hold his hand steady when extended. Pulse small & quick, impossible to count on account of the motion of his hands and fingers. Watsons friends say that he is an habitual drinker and almost always drunk. ℞ Tinct. Opii ℥j. Spir. Vin. Gallici ℥j - discontinue the antim. in former prescription. 6 o'clock P.M. Delirium more violent rendering the use of me==chanical ~~strength~~ restraint necessary. Repeat former prescription. The delirium gradually increased Convulsions supervene and he died this friday morning about two o'clock. —

The patients history of himself, his previous Exposure to cold & wet, the character of the pain slight cough, want of expectoration full pulse caused the case to be considered as a slight inflammation of the Pleura: and as the attack seemed to be slight the treatment pursued was

merely revulsive, and of course the prognosis was favourable.

On the ensuing morning suspicion was first excited as to the true disease existing in the lung by the patients being unable to define the precise point of the pain. The physical signs of Pneumonia in the first stage, in the middle lobe of the right lung and the lower as passing from the first or congestive to the second or hepatized (red softening) and the complete solidifi= =cation of the lower lobe of the same lung made the diagnosis clear. The conjunction of sharp pain with the other symptoms shewed the case to be complicated with Pleuritis: for Pneumonia "Effert plus periculi quam doloris" Only one of the usual signs of Pneumonia was absent, the rusty sputa and this is rather a serious complication. Prognosis still favourable was by no means as much so as last night. The treatment pursued was the rational one, venese= =tion to relieve the congested state of the inflamed lung and to reduce the force of the hearts action

Antimony to calm the exalted arterial system and the cloride of mercury to prevent the effusion & organization of exudation

When, the accessory symptoms of excessive nervous derangement manifested themselves & the bad habits of the patient became known of course the antiphlogistic treatment was discontinued as the nervous centers needed stimulation and not more depression by the abstraction of the vital fluid by bleeding or its impoverishment by the use of mercury. The symptoms being preeminently those of depression, from his being deprived of his accustomed stimulants and still farther from his having been bled in the morning our efforts were directed to give to the brain its accustomed amount of stimulation. Opium & its preparations aided by alcoholic stimuli were employed in vain with this intent. The immediate cause of death seems to be from the inability of the brain to transmit to the viscera, necessary for the maintenance of life a due supply of the nervous fluid. The existing inflammation of the lungs was

insufficient to cause death.

In all diseases we ought to be careful warned by the fatal termination of this case, to make a strict and minute enquiry into the previous habits and habitats of our patients. Had Watsons true history been ascertained, though in all human probability the result would have been the same still our treatment would have been different although moderate depletion by the lancet would have been necessitated by the inflammation existing in the parenchyma of the lung. Stimulants would have been exhibited at the same to elevate and maintain the tone of the nervous centres. All inflam=matory diseases occuring in persons of intemperate habits, are to be watched carefully and the treatment must be directed both to deplete on the one hand whilst we support the strength by stimuli on the other. Always rendered grave by such complication however slight may be the inflammation

An Inaugural Dissertation on
Cholera;
submitted to the examination of
the Provost Regents & Faculty of
Physic,
of the University of Maryland;
for the degree of M.D.
by
Edwin Lafayette Duncan
of North Carolina

To

Nathan R. Smith M.D.
Professor of Surgery in the University
of Maryland.

May his usefullness be prolonged
and his present reputation unsullied
for many years to come.

Respectfully

E. L. Mumbey

The Cholera.

We have selected the above as the subject of our dissertation, not with the design or vanity of adding anything new, but on account of its dreaded power and present proximity to us.

Since the days of Pandora, whom daring curiosity and prying disposition led to open the fatal present containing the thousands of ills, to which flesh is heir; no disease simple or compound has, in so short time, caused so much destruction among the human family.

It comes upon us, not as disease in its general form and expected from age, time, season or locality, but at one time noiselessly like a thief in the night; again boldly and fearlessly like the warhorse to battle; and again as the

volcano destroying and consuming all that may oppose it. It makes no distinction between persons or places; entering the palace of the rich and the hovel of the poor, breathing alike its pestilential breath upon the velvety cheek of youth or the frosty brow of age. The King and the beggar are alike subject to its power, and it kisses the rosy lip of royalty and the emaciated one of poverty with equal gusto.

As capricious in will as independent in taste; we find it suddenly raising its Gorgon head in the midst of some devoted people, tarrying with them for awhile, and then as suddenly departing wheresoever it wills. Pausing for awhile as if for breath or repose, or from satiety; we find

it as suddenly returning, none knowing from whence it came. Again we find it passing telegraphically ~~passing~~ over plains, valleys, mountains, rivers, and even old ocean herself, devastating all in its way, fearing no law obeying no rule. We generally find its presence in places where its power can be most severely felt, in crowded cities and populous districts; dwelling so long as it wills, but never departing, until, like Medusa of old, it leaves many a monument of stone to mark where its path has been. But may not some modern M.D. arise, like Perseus of old and discovering through the mirror of science its deformities, with the sword of Esculapius destroy its power

and register it among the things that were? As an Epidemic Cholera was first known by the medical profession of Europe in the year 1847. Breaking out in one of the provinces of India, it first appeared slow in its progress, remaining on its native soil as if to perfect its power before attacking the world. From this as its centre it seems to have gradually encircled all the surrounding countries, until it had grasped the whole of Asia.

Pausing for a few years seemingly in a survey of its conquests and levying its destructive tribute upon its miserable subjects; not content with its power, and ambitious of travel, we find it fairly journeying through Europe

in the year 1830. In two short years from its entrance, we find London and Paris yielding to its ~~it~~ sway; and in the same year it made its omnipotent bow in the land of Freedom. After journeying through this country, making partial returns for the space of two years, it left us to feed upon the vain hope of eternal freedom from its power. Deluded by this and lulled into security by its absence for 14 years, we had ceased to know it except by name. After that lapse of time, it has again suddenly and without an admonition placed its foot upon our shores, and stretching forth its powerful arm has in a few weeks, trans-
-mitted its influence from

New-York to New-Orleans, where it is now rageing with extreme violency. As regards the nature of this disease, Physicians disagree in many points; some considering it as a pure Gastro-enteritis; others rejecting this idea in part and advanceing the opinion, that there is a specific cause, capable by its direct action of producing the phenomena of this disease. In support of the first, it is advanced that the phenomena have their root in this affection, or how could we account for the burning sense of heat in the stomach? the antecedent nausea, vomiting & diarrhoea and the undeniable evidences of positive inflammation after reaction? How explain? that indigestible substances and active or acrid cathartics brought on the

disease or augmented the symptoms?
On the other hand it is admitted that there is a partial inflammation of the gastro-intestinal mucous membrane, but not of sufficient intensity to indicate is as the basis of this disease. They alledge, that no one familiar with inflammation of this membrane sufficient to cause death, can account for its ready submission to the mildest remedies. Admitting an inflammation of this membrane and its tendency to the secretions of that organ; they still deny it power of producing the phenomena, alledging that the injection after death was venous, that the matter exuded was the fibrinous and albuminous portion of the blood, that it was not confined to that organ, but was found in the mucous

membrane of the urinary canal, in the parenchyma of other organs and even in the skin, when there could be no subcutaneous inflammation. This immense loss of the fluids of the body, (peculiar to this disease) by rendering the blood too thick to pass the capillaries and reach the aerating surfaces. will account for the sudden collapse, the shrinking of the extremities and the burning thirst. By it also, the other secretions were diminished or ceased, the serous portion of the blood passing out through the exhalents. As regards the nervous phenomena, there is some difficulty in their solution, being found worse in many cases when the alimentary canal was least affected, and on the other hand collapse taking

place, when the evacuation were insufficient in point of proof; but in all cases, this peculiar exhalation or Cholera discharge was found. The inference then drawn and the opinion generally held by the Medical Profession, is, "that this cause is distinct from that of any other disease, and capable in itself of producing all the phenomena, acting as a direct sedative to the system at large and as an irritant to the mucous membrane of the alimentary canal.

We will not worry your patience farther with all we might learn and write of its Diagnosis, Prognosis, Treatment and Autopsic appearances, feeling that it would not only be an imputation of ignorance to yourselves, but a —

thankless task upon your time.

As regards its being contagious or non-contagious, after a study of all the opinions advanced on both sides, we are in favor of the latter doctrine, which is the one generally held by the medical profession of this country and of Europe.

In conclusion, we will remark, that thus far we have escaped the ravages of this modern Hydra, as if it feared to attack us; but should it come, may each of you prove a modern Hercules, and wielding the knotty club of Medicine, crush its detested and fearful head, and with the actual cautery of science, sear and seal its power forever!

An
Inaugural Dissertation
on
General Dropsy
Submitted to the Examination
of the
Provost, Regents & Faculty of Physic
of the
University of Maryland
For the
Degree of Doctor of Medicine
by
Walter G. Carter
of
Maryland

Dropsy

Dropsy may be defined to be a morbid accumulation of watery or serous fluid in the cellular-tissue or serous cavities. A certain portion of such fluid is essential to the healthy state of these parts. It is only when the wants of the tissues exceeded, and an accumulation takes place productive of more or less inconvenience or injury that it can be said to be morbid, and thus to constitute dropsy, when the accumulation takes place in the cellular-structure, it is denominated if extensive, anasarca, if limited to one part, edema; when it affects the arachnoid, it is called hydrocephalus, or dropsy of the brain; when the pleura, hydrothorax, or dropsy of the chest; when the pericardium, hydropericar-

-dium, or dropsy of the heart; when the peritoneum, ascites; or abdominal dropsy. The name of general dropsy is given to the affection when it occupies all or most of those positions, to a greater or less extent, at the same time.

The Pathological Conditions

The pathological conditions upon which the accumulation of serous fluid, into the cellular tissues or serous cavities, which constitutes the true disease, depends, are various, even opposite conditions are capable of producing the same disease. The following is a list of the pathological conditions which give rise to dropsy, viz. First, Irritation, Active Congestion, or Inflamation, Second, Debility,

or relaxation, Third, Passive congestion Fourth, Altered conditions of the blood, Fifth Deficient absorption, = First, Irritation, Active Congestion or Inflamation.

In the normal condition of the cellular and serous tissues, there are constantly exhalations of watery fluid, and this fluid is removed as fast as it is exhaled, by the absorbents, consequently no accumulation of dropsical fluid takes place, but when those tissues becomes excited or stimulated to increased exhalation, and there is not a corresponding increase of absorption by the absorbent system, dropsical accumulation must be the result, There are two conditions of those tissues which may result in dropsical accumulation, viz. First a normal amount of secretion

of the healthy tissue, with abnormal or deminished absorption, second increased exhalation or secretion of those tissues, with a healthy or normal amount of absorption, Thus constituting ~~one~~ of the pathological conditions which constitutes Dropsy.

Second, Debility or Relaxation

An opposite condition of the tissues to that just mentioned, is a pathological condition, upon which dropsical effusions some-times depends. Thus the secretory orifices become relaxed and dilated, and thus deminish the obstruction to the passage of the serous portion of the blood through them, A striking example of this state of tissue, may be seen in the relaxed and dilated pores of the skin, Colliquative sweats, &c

= Third, Passive Congestion =

The blood vessels when distended with blood, and not the result of irritation frequently relieve themselves, by allowing the more fluid portion of the blood, to escape through their much distended tunics, into the cellular tissue or serous cavities, - thus constituting one of the pathological conditions which gives rise to dropsy. This effusion appears to be the result of mere mechanical pressure, the vessels being enlarged and dilated with the contained fluid, and then pressed upon by the surrounding tissues, conjoined with the pressure exerted within those vessels, by the distending fluid, the more serous portion of it, is litterly pressed through them, and thus result in dropsy - Some pathologist suppose

that the distention of those vessels act as a direct irritant to the capillaries, and thus stimulating them to increased exhalation or secretion, thus giving rise to the effusion; whilest others maintain that both of those conditions act conjointly. There is no doubt that this may sometimes be the case, but that the effusion is sometimes the mere result of mechanical pressure is equally true.

Fourth. Altered Condition of the Blood

That an altered condition of the blood is a pathological condition in dropsy, there can be no doubt. In what this altered condition consists. Pathologist are not agreed. A watery condition of the blood is supposed by some, to occasionally give rise to the disease, as there have been cases of anemic patients, who have been ex-

-amined after-death, who having died of dropsy, in which there could be no lesion detected to which the effusion could be ascribed, By some a diminution in the quantity of the albumen of the blood as a condition,

Fifth. Deficient Absorption

In health there is a constant exhalation of watery fluid from the serous and cellular tissues, which is absorbed by the absorbents as fast at it is exhaled, consequently no accumulation takes place, But if the absorbents were unable to perform their functions the accumulating fluid then would be owing to deficient absorption, or I mean by deficient absorption, that the absorbents are incapable of absorbing the fluid exhaled by the tissues when in their health state,

whereas if the absorbents performed their functions normally, whilst the secretions from the serous and cellular tissues were increased, then the resulting dropsy, the pathological condition of which would clearly be that of increased exhalation.

Symptoms. Course. Terminations

The symptoms of dropsy are various, and depend much upon the pathological condition which gives rise to them. When the pathological condition, which gives rise to dropsy is of the inflamatory type: the patient plethoric, the affection generally makes its appearance suddenly, characterized by more or less febrile action, with a full frequent and hard pulse, hot and dry skin, scanty urine, furred tongue

and constipated bowels &c. where as if the pathological condition is depen-dant upon a relaxed and debili-tated state of the system, the affection generally makes its ap-pearance more slowly, and is char-acterized by a depressed rather than excited vascular action, the pulse weak and feble, the skin pale, the bowels constipated, though sometimes relaxed, febrile excite-ment if any light, there is occa-sional exceptions to either of those conditions, In the former, the symptoms may be more gradually making their appear-ance and partake of the nature characteristic of debility, where as in the latter they make their appearance suddenly with symp-

-tions characteristic of the inflamma-tory type, the secretions in dropsy are more or less altered or deranged. The urine is more or less altered and nearly always deficient in quantity In some rare cases of dropsy, the urine remains at its normal quantity or it may it may be somewhat increased. The character of the urine is various, In different cases it is deep-brown, deep red, laterous, bloody bellous, pale light red & yellow, turbid, limpid and some times quite healthy in appearance. In dropsy of a renal origin it is dark brown or tinged with blood, generally more or less acid and albuminous, The al-luminous condition of the urine though nearly always depending upon some structural disease of

the kidneys, nevertheless is sometimes found when those organs are in their normal condition. Dropsy following fevers are frequently accompanied with albuminous urine.

The secretions of the skin are generally deficient.

The bowels are always more or less constipated, and quite insusceptible to the action of the most active cathartics, and it is with great difficulty that we can sometimes procure their evacuation. In some cases in which there is intestinal irritation or inflamation there may be diarrhœa.

Thirst is often one of the most troublesome symptoms with which the patient has to contend

it is not only confined to cases of febrile excitement, but to those in which there is scarcely any febrile movement.

Dropsical fluid appears to consist of the serum of the blood more or less altered. The characters of this fluid is sometimes various, limpid, colourless or yellowish, occasionally tinged with blood, and when dependant upon inflamation is sometimes mixed with flakes of lymph or pus.

Dropsical effusions may occupy any of the serous cavities or the whole or any part of the cellular tissues, or there may be effusions into both of those tissues at the same time.

Gravitation and the position of the patient have much effect in determining the position of the effused fluid. thus in Ascites, when the patient is in the erect position little inclined anteriorly the effusion appears in the abdominal region projecting forward the abdominal walls. but if the patient be now directed to lay upon his back the fullness in front will immediately disappear. The fluid having gravitated towards the back, in this case there will be bulging of the lattera-al walls of the patient, The cellular tissue which communicate with all parts of the

body, forming septums between the different tissues, sheaths for vessels and nerves &c. is composed of a minute network of fibres and bands, which interlace each other in every direction thus leaving innumerable little interspaces or cells which readily communicate with each other; the consequence of wich is, when there is effusion into this tissue, the fluid makes its ways to the most dependant position of the body, as there is but little obstruction to its onward course, thus we account for the appearance of the effusion first in the feet, they being the most dependant position in dropsy of this tissue.

The period of life at which dropsy is most frequent is that of old age, it is confined to no period, the young as well as the old are her subjects, The disease sometimes undergoes a spontaneous cure, and is always accompanied with some profuse discharge, either from the alimentary canal, kidney or some tissue, The great variety of symptoms which make their appearance in dropsy are dependant upon the pressure exerted by the fluid upon the different organs, embarrassing their functions, thus we have convulsions, palsy, apoplexy, coma from pressure within the head, difficulty of

respiration and irregular-action of the heart from pressure within the chest and impaired digestion from ascites &c =

The disease generally terminates favourably when there is no organic lesion of structure, and in nearly all cases where the cause which gave rise to the disease can be removed, but if the causes of the disease be irremoveable, and the patient old, it must always sooner or later terminate in death, cases of debility where the powers of life are much depressed or prostrated, unaccompanied with organic lesion, generally end fatally, and when there are

two or more of the preceeding conditions are combined, the chance of recovery is small.

Causes of Dropsy

The causes of dropsy are numerous, any agent or agents, acting upon the system so as to produce any of the pathological conditions upon which dropsical accumulations depend, are consided as the causes of dropsy. The following are the principle,

First. Those capable of inducing irritation, inflamation or active congestion of the secreting tissues. Thus exposure to cold when in profuse perspiration, the fluid thus checked, if not eliminated from the

system by some other organ or tissue, acts as an irritant to the serous or cellular tissues exciting them to increased exhalation and thus producing dropsys. The kidneys from functional derangement may operate in the same manner and with the same results retrocessions of cutaneous eruptions, Metatastasis of Gout & Rheumatism, suppression of the menstrual flux are said to act as causes of the disease.

Secondly. those that operate by relaxing and debilitating the tissues, and impverishing the blood. Thus the agents acting thus upon the system so as to give rise

to dropsy, may be considered as the causes of the disease. among them may be mentioned, insufficient or unwholesome food, insufficient clothing exposure to cold and damp air continually, impaired digestion, excessive secretion and great loss of blood, diseases that are of long continuance and are debilitating, such as Gout, scrofula, cancer and scurvy &c=

Thirdly. those that act mechanically as the cause of dropsy, are those that obstruct or retard the returning current of blood in any way, thus inducing congestion or distention in the whole venous ramification of vessels and capillaries below the

point of obstruction, of causes acting thus may be mentioned - obstructions in the lungs impeding the flow of blood from the right to the left side of the heart, inducing congestion in the right side of the heart consequently the whole venous system, thus producing general dropsy, again organic disease of the heart, act similarly, organic disease of the liver may produce dropsy by pressure upon the venna cava ascendens and venna portarum, the former giving rise to anasarca, the latter, to ascites, organic disease of the spleen may also give rise to dropsy, pressure upon large venous trunks

by abnormal growths as cancer-
-ous tumors, cysts, and the like
obliteration of a small portion
of some of the larger veins, Dro-
psical effusions sometimes act
as a cause of dropsy in other
tissues by the pressure they
exert upon the surrounding
parts, thereby producing con
-gestion in them, Debility is of-
-ten a cause of dropsy, by re-
-laxing the whole system,
In this case the blood is re-
tarded in the veins by their
relaxed condition, the walls of
which not having their proper
tonicity are expanded thus ac-
-ting by not assisting in pro
pelling the flow of blood through
those vessels against the force

of gravitation, In proportion as this state exist, so is the conges-tion, All agents acting upon the system so as to induce great prostration and relaxation are capable of inducing, ==

Exanthematous fevers are said to be frequently followed by dropsy such as scarlet fever, small pox and measels & They may op-perate, by inducing debility or the morbid poison that in-duced the fever, having not been completely eradicated from the system remains and acts as an irritant, to the serous and cellular-tissues inducing an increased exhalation, or the ex-posure of the newly formed cuticle to the influence of

cold, may induce the disease in the same manner - The dropsical symptoms may make their appearance soon after the febrile have ceased, or a month after this period, but generally between the tenth and twentieth days. Anasarca is the form of dropsy most frequent in those diseases, we occasionally have it in the serous cavities, the complaint is generally inflammatory, characterised by a full, hard and frequent pulse, hot and dry skin, furred tongue scanty urine and constipated bowels &c, occasonally effusions take place within the head, indicated by palsy, coma,

apoplexy &c, also effusions within the chest. indicated by pain, cough, dyspnœa, and irregularities in the heart's action ——

— Disease of the Heart —

organic disease of the heart is a cause of dropsy by embarrassing the circulation thereby inducing congestion in the right heart and consequently in the whole venous system, The blood thus accumulated, dilates and distends those vessels to their minutest capillaries, They thus distended together with the pressure exerted within by the column of blood, and that exteriorly, caused by the contraction

of the muscles, the more serous portion of the blood is literally pressed through them into the cellular tissue or serous cavities, thus giving rise to general dropsy, some contend that the effusion here is owing to the capillaries being excited to increased exhalation by the stimulating influence, that distention has upon those vessels, perhaps both of those conditions are sometimes combined, All causes acting upon this organ so as to incapacitate it from conveying the blood from the right to the left side of the heart and thence through the arterial system as fast as it is returned to the right

side of the heart by the venous system, and consequently inducing congestion in this organ may be considered as the cause of the disease, thus among the causes inducing this condition may be mentioned. Constriction of the valves, and insufficient closure of the same, thus for example if the auriculo-ventricular-valve of the left heart be constrited the onward flow of blood into the pulmonary veins is impeded the resistance is propagated through the capillaries to the ramifications of the pulmonary arteries, the right ventrical becomes overloaded, consequently the whole venous system con-

-gested. If on the contrary the valves are not properly closed, at each contraction of the ventrical a part of its contents is forced back into the left auricle, consequently propagates its influence back to the pulmonary veins, capillaries and arteries to the right ventrical thus inducing congestion as in the constricted state of this valve, Other diseases of this organ are capable of producing congestion of this organ

Dropsy depending upon diseases of the heart generally makes its appearance first in the feet and leggs and is thence propagated through the whole cellular tissue and near by

all the serous cavities, causing great enlargement of those parts, exquisite pain, great prostration, dyspnœa & the like. The chance of cure of such patients is slight, the sufferings of the patient can be palliated, but nothing permanent, the patient is however relieved of his sufferings by that monarch who sways his septre over all, and by whose bayonet all must fall, notwithstanding the agency of our art. ==

== Disease of the Liver ==

Disease of this organ is a very frequent cause of dropsy. Thus enlargement of the liver may give rise to dropsy by pressure upon the venna-Cava

consequently congestion in all it minute ramifications below this point, or an altered condition of the structure of this organ so as to interfere with its own circulation may give rise to acites by inducing congestion in the venna-portarum consequently its minute ramifications, Both the venna cava and portarum may become congested at the same by diseases of this organ, in which case we ill have anasarcas and ascites as a consequence, among the diseases of the liver this giving rise to dropsy may be mentioned extensive

tuber-culation, scirrhus, cirrho-
-sis, and inflamation. & Drop-
-sy depending upon structu-
-ral alter-ation of the liver are
gener-ally incurable, but
in cases dependant upon
enlargement of the viscus
its is generally cureable, as
the cause which gives rise
to the enlargement of the
viscus is gener-ally chronic
inflamation, now just in
propor-tion as you relieve
the inflamation, so does
the liver becomes of its no-
-mal size, consequently the
effusions is arrested and that
which was effused is speedily
absorbed and eliminated, conse-
quently the cure of the dropsy

Disease of the Kidney

The kidney being an organ by which a large quantity of the superfluous fluid, together with the acids and salines are eliminated from the blood, thus preventing their undue accumulation in this fluid, consequently their injurious effects upon the system, But when this organ ~~from~~ disease is incapable of performing her proper functions, and they not being vicariously performed by some tissue, as the skin, the constituents of the urine consequently remain, to be seperated from the blood by some other tissue, This is accomplished

by its irritant effect upon the serous and cellular-tissues exciting them to increased exhalation consequently dropsical effusions in to their cavities or the cellular-tissue, among the diseases of this organ which are said to give rise to dropsy are alterations in its parenchema; Inflamation, congestion and disorganisations of various kinds, A peculiar disease of the kidney termed bright's, is nearly always accompanied by dropsy, The albuminous condition of the urine in this disease of the kidney is supposed to be owing to the inability of the kidney to seperate the urine from the

blood properly, but allows the serum of the blood to pass unchanged, thus giving rise to the albuminous urine by depriving the blood of that constituent, This condition of the urine is always or nearly so found in dropsy depending upon Bright's disease of the kidney, The most frequent form of dropsy depending upon disease of the kidney is anasarca, we occasionally have it in the serous cavities, Dropsy depending upon disease of the kidney is peculiarly liable to be complicated with cerebral derangements caused by the injurious effects of the

undue quantity of uric acid in the blood, upon the brain deranging its functions or upon dropsical effusions within the cranium, or perhaps both may coexist, the symptoms which indicate this condition of the brain, are head-ache, drowsiness, stupor, delirium, paralysis, apoplexy, and various other nervous irregularities, they generally make their appearance towards the close of the disease, and frequently terminates the life of the unfortunate sufferer. The secretions of urine at this stage or just before of the disease, are almost or quite suppressed, thus accounting for

the undue quantity of uric acid in the blood, The curability of the dropsy depending upon disease of the kidney depends upon the curability of the cause which gave rise to it, that is, remove the cause, and restore the kidney its proper-functions, you ill generally succeed in restoreing the health of the patient, but in all cases in which the cause which gives rise to the dropsy is irremovable the patien in such cases gener-ally falls sooner or-later-a victim to death though they sometimes live in this state a long time

Prognosis

The prognosis in this is favourable in all cases in which the causes which gives rise to the disease are removeable, as in cases which depend upon inflamation of the different organs and tissues, congestion and debility of the same or from any other cause which is capable of being removed. but in all cases in which the cause of the disease is irremoveable as in Brights disease of the kidney, cirrhosis and scirrhus of the liver, and diseases of the heart together with many others of the same class, Generally end fatally.

Treatment

Treatment, As the causes which gives rise to dropsy are various so must be the treatment, The remedies must therefore be applied to suit the indications of each case, and as the pathological conditions which constitutes the true disease are various and sometimes directly opposit, so must the treatment be to suit their different indications. Thus for example in cases dependant upon a high and inflamatory action, the indications for treatment are those of depletion, whereas in cases dependant upon debility, a tonic treatment is

indicated. In the treatment of dropsy, there are certain indications which should be kept constantly in view by the practitioner - viz. First to correct as far as possible the pathological condition upon which the effusion depends, Second to remove as far as possible by absorption or otherwise the effused fluid. Third to remove or remedy any disease whether Cardiac, Hepatic or Renal, which may act as the remote cause of the dropsy. Fourth to support the strenght of the of the system, when this may be necessary, under the exhausting influence of the remedies employed

In the exhibition of remedies, such should be used as fulfill the most indications or the combination of several may be used to accomplish the same end. Thus in dropsy dependant upon inflamation, we may in conjunction with venesection use cathartics, diuretics and alteratives all tending to the reduction of the inflamation and removal of the effusion —

Venesection as a remedy in dropsy

Dropsy when the result of inflamation or an irritated condition of the exhalent or secreting tissues together with a frequent and full pulse plethoric habit and an active state

of the circulation conjoined with active febrile excitement venesection is undoubtedly indicated, in the first place to remove the irritation or inflammation which gives rise to the effusion secondly it promotes the absorption of the effused fluid, according to the well established law, that the fullness of the blood vessels and the activity of absorption are in an inverse ratio to each other. The amount of blood to be taken depends upon the circumstances of the case and the constitution of the patient, if he is of a full and plethoric habit with

high inflamatory action a full tence and frequent pulse, togeth with high febrile action, we may take from fifteen to twenty ounces of blood, and if necessary repeat-ed again and again, but if the patient have little or no feves; and there is not any marked symptoms of inflamation it is not ne-cessary to bleed just for the purpose of promoting absorption, when there are no other indications call-ing for its use, for it is apt to produce when pre-sisted in one of the patho-logical conditions upon which dropsical effusions

frequently depends. Thus instead of curing the dropsy, aids in the production of the disease we are trying to cure, by weakening and debilitating the patient. Again if there be little or no fever, but a full and strong pulse and other symptoms of inflamation it may be necessary to take blood. The remedy itself is sometimes sufficient to cure dropsy. When it thus acts so successful it must be owing to its relieving the congestion, inflamation or the cause of the effusion whatever it may be, and promoting the absorption of the effused fluid, but as a general rule, cases are

rare in which venesection can be carried to such an extent as to be capable of entirely eradicating the disease. But as an adjuvant to other remedies it is invaluable, There are cases in which we must use this remedy irrespective of the debility which it is so apt to occasion. Thus in a sudden and voilent attact of inflamation of some organ or tissue as the Heart or the Peritoneum, In this case the depletion is necessary for to rescue the patient from being carried off by the immediate prostration induced by the intensety of the inflamation although

it may aggravate the dropsy. The buffy condition of the ~~blood~~ is said to be an indication for depletion as it is always (with a few exceptions) an indication ~~inflammation~~ of the existence of inflammation though by no means an infallable sine, In cases in which depletion both generally and local has been carried to the extent of the ability of the patient to bear without having reduced the inflamation, we may then resort to mercury for its alterative effects upon the system, with some hope of success,

— Tonics as a remedy in dropsy:

Dropsy instead of depending

upon an increased excitation, irritation or inflamation of the secreting tissues or of some organ acting as a remote cause of dropsy, is sometimes depending upon debility, great prostration of the system, and an impoverished condition of the blood, as a consequence of which there are a relaxed condition of the secreting and absorbing systems, the functions of which necessairly impaired and are a prevalent source of dropsy. The indications for treatment of dropsy depending upon debility are to improve the condition of the blood and to strenghten and vigorate

the general system thereby giving tone to the secreting vessels consequent deminishing the escape of the watery portions of the blood through them. This is accomplished by the exhibition of Tonics. The most appropriate of this class are the preparations of Iron and Sulphate of Quina. The carbonate of Iron conjoined with the sulphate of Quine made into pill, and given three times a day, is perhaps the best tonic we possess, to give strenght and vigor to the system. This may be combined if necessary with Astringents, Alteratives, Diuretics and the like

or any other remedy when indicated. The diet should be of the most nutritious and easily digested food, such as animal food. Porter and Ale may be allowed for drink. In cases of dropsy in which there is no evidence of debility or excitement, we may leave the general health of the patient out of the question, and proceed to the removal of the cause and the promotion of absorp of the effused fluid, the latter is best accomplished by promoting the secretions of other organs or tissues, thus indirectly

abstracting the water of portions of the blood thereby lessening the quantity of blood in the vessels an consequently enableing them to absorb the effused fluid more easily. of this class of remedies may be mentioned, First Diuretics, Second Cathartics, Third Diaphoretics Fourth Mechanical pressure.

Diuretics

Diuretics when properly administered are our most efficient agents in the cure of dropsy. They operate by stimulating the kidneys to an increased secretion of urine, thus diminishing

the watery portions of the blood, the consequence of which is the blood vessels are excited to an increased absorption and are thus enabled to take up the fluid that is effused into the serous cavities or cellular tissues thus promoting the cure of the dropsy When the functions of the kidneys becomes impaired which it always is in dropsy more or less, eithes from congestion, inflamation, Granular deposits or from some other cause, thus preventing them from secreting their normal quantity of healthy urine in

consequence of which the fluid which should be carried off by those organs, (if not vicariously secreted by the skin) remain in the blood untill compelled to seek an outlet somewhere else, which it does by stimulating the serous and cellular tissues to an increased eschalation consequently dropsy of those tissues. Diuretics are here imperitively demanded and by the proper-exhibition of which our hope of success depend. of this class of remedies may be mentioned as the best, the Tartrate of Potassa, When there is ani

organic disease such as alter-
-ation of structure, tuberculas-
deposits or some irremediable
disease at the foundation of
the dropsical effusion acting
as the cause of it, and the stren-
-ght of the patient such that
the remedy can be continued
a sufficient lenght of time
combined with adjuvants if
indicated. Success of cure, by
this remedy may be con-
-sidered as certain. The quan
-tity of this salt to be taken
through the day is various,
from half an ounce to two
(depending upon the cir-
-cumstances of the case) to be
taken in divided doses through
the day so as to keep up a

continued diuresis, If the salt should induce cathartic it is advisable to add a few drops of laudanum, if dispeptic symptoms should arise they should be obviated by appropriate remedies, The fluid in which the salt is administered may be medicated for that purpose, The only cases in which the remedy is positively contra-indicated are those of pure debility, The remedy next in efficacy is the Nitrate of Potassa, it is especially useful in cases complicated with high vascular excitement owing to its sedative influence upon

the system. The carbonate and bi-carbonate of Potassa are sometimes used with advantage in cases complicated with acidity of the stomach by neutralizing them. The preceeding diuretics may all be combined with other remedies when indicated,

---

Squills is a remedy of high repute in dropsy and may be employed under all circumstances with great hope of success, except in cases of high inflamatory action or an irritated condition of the stomach it being here contra-indicated owing to its stimula-

-tings qualities, The dose to begin with is two or three grains, to be increased until there is slight nausea, and should be kept just below or within this point, It is frequently combined with Calomel and other alterratives, or any other remedys when indicated ——

Digitalis is an other most valuable remedy in in dropsys and would be much more so if the precise cases were known in which it would always act, as there appears to be necessary a certain condition of system to call forth its action, as there are many

cases in which it appears to do no good whatever — whereas whenever it acts, it produces a powerful and most copious diuresis, and maintaining its action untill the dropsy is dissipated. In cases of anasarca following scarlet fever - it is said to be used with the happiest effects In dropsy depending upon disease of the heart it is said to give great relief. It is also used in cases in which there is albuminous urine and the like. Any tendency digitalis has to affect upon the bowels should be counteracted by a few drops of Vinc. Opii, which is

also sometimes an useful ad-
-juvant to counteract the
sedative influence of the
digitalis upon the system,
The dose of the remedy to
commence with is one grain
of the powder - or an infusion
containing one dram of the
leaves to ten ounces of water -
one teaspoonfull to be taken
three times a day to be grad-
-ually increased untill some
indication of its action upon
the system is manifest. The
effects of digitalis should be
carefully watched, and any
appearance of a decided op-
-pression should be a signal
of its discontinuance, as it
has a great tendency to re-

-main dormant whilest it is being administered until some considerable quantity has been taken, and then to break fourth from its state of repose with as much violence as if it had all been taken in one dose, should be borne by the Practitioner; The remedy should not be administered longer than a week at a time if there is no perceptible sine of its action There have been from time to time employed other diuretics with good succes The above diuretics are some times combined with other remedies with succes when indicated

Cathartics

Cathartics are a class of remedies scarcely less efficient than diuretics in the cure of dropsy, they operate by unloading the congested state of the viscera, thus promoting absorption, and by their revulsive effect upon the alimentary canal. In the former they diminish the quantity of blood in the blood vessels thus promoting absorption by being enabled to take up more readily the effused fluid. In the latter by calling off the irritation from the secreting vessels which are morbidly excited

to an increased exhalation to the theater of their own action thus deminishing the effusion, In this respect cathartics are superior to diuretics, They are most appropriate to those cases of dropsy in which there is a considerable degree of vascular excitement with more or less febrile movement, and the patient has considerable strenght, as their debilitating power is great in proportion to their depleting, They should not therefore be used in cases of great debility or in cases complicated with gastro-intestinal irritation

as they would under such circumstances be likely to induce inflamation of the canal, They should not be long used in cases complicated with Gout or Rheumatism as they might induce mettastasis of those diseases from a safe to their seat of action it being a far more dangerous one, with due regard to the above directions cathartics are valuable remedies in the cure of dropsy, with regard to their selection those should be used which induce full and copious serous discharges from the bowels In cases of febrile and inflamatory action, the saline

cathartics should be used for their refrigerating effects upon the system, For this purpose the Bi Tartrate of Potassa and the Bi Tartrate of Potassa et sodæ, given in full cathartic doses, and when not sufficient of itself to purge may be combined with some more active agent as Gamboge, Elaterium or Colocynth, When there is great torpidity of the bowels and not complicated with debility the more drastic cathartics are the appropriate remedies, the best these are Jalapa, Gamboge, Colocynth. Croton oil Elaterium, beside these there

are others of considerable reputation, viz. Scammony, Helleborus and the like. The effects of Elaterium are sometimes surprisingly prompt and effective, relieveing the patient almost immediately. In all cases in order that cathartics may prove beneficial they should be administered so as to keep up a constant evacuation so long as it is necessary. They should be medicated in all cases whenever indicated. —

— Diaphoretics —

This class of remedies are not as efficient as any of the preceding, but in case of their inappropriateness we

can resort to diaphoretics with some hope of success as there have been cases cured by them. The best diaphoretics is the officianal powder of Ipecac and opii. To be rewarded with success the remedy should be persisted in so as to keep up a continued diaphoresis.

Mercury

Mercury is an invaluable remedy in dropsy owing to the property it has of promoting all the secretions and at the same time its powerful agency in promoting the absorption of effused fluid, and its antiphlogistic properties would

renders it particularly efficacious in cases depending upon inflamation, It may be made more efficient by combining with it other cathartics and remedies when indicated.

Mechanical Means

When all measures have failed to remove the effusion and it has become effused to such an extent as to be painfully inconvenient. Mechanical measures are our only hope and resort, of success, Thus we make use of punctures and sometimes introduce a canula so as to give an artifical outlet to the fluid, Thus relieving the patient for a time at least

and occasionally a permanent cure is effected when the cause which gave rise to the disease in the first place having been relieved but the dropsy kept up by the effusion which was the result of the first cause, thus distending the serous cavities and cellular tissue, thereby mechanically exerting pressure upon the surrounding organs and vessels producing congestion in them. consequently the effusion of dropsical fluid. thus accounting for the progress of the progression of the dropsy when the original cause of the disease has disappeared

now it is self evident that if we relieve the system of this fluid either by tapping or punctures or in any other way we relieve all those conditions by which the effusion is caused. ~~to be effused~~ The ~~function~~ organs being thus relieved of the embarrassment to which they have been subject now perform their functions normally, no effusion now takes place and what was not drawn off by the punctures or tapping — is absorbed and the patient gradually returns to perfect health. cured of his dropsy.

Yours

Walter, Kp, Carter

March, 15th 1849

An
Inaugural Dissertation
On
Scarlatina
Submitted to the examination
of the
Provost Regents & Faculty
of
Physic of the University of Maryland
for the
Degree of Doct of Medicine
By
Francis Spencer of Maryland

Feb 1st 1849

Though man be the greatest most perfect and most astonishing of the divine works, Yet to him are bequeathed innumerable troubles trials and perplexities, the greatest of them all is disease, To this Prince all must bow, in submission this foe of pleasure and happiness comes ~~[illegible]~~ as one of old expresses himself like a thief at night when all is peace and serenity fastening itself upon those who have least reason to anticipate its chilling call.

I have choosen Scarlatina as the subject of this essay this is a febrile disease, contagious in its nature attended in every case either with an eruption or a sore throat or both and rarely if ever attacks but once, Persons of all ages are liable to an attack but

particular young subjects who are much more frequently attacked than adults this complaint is usually divided into three distinct forms. but there is some difficult ~~of~~ any strict line of distinction between them

Scarlatina simplex this commences with all the ordinary symptoms of a febrile disease In about two days after the fever sets in we have a scarlet eruption making its appearance, these pimples are small but thick in some cases giving the whole surface a scarlet hue this eruption makes its first appearance on the face & neck then on the trunk spreading over the body, this eruption is not regular in all cases it may cover the whole surface

or come out in blotches the redness dispear on pressure the tongue is covered with a white fur the papilla of the tongue making their appearance above it the skin is hot rough and dry - face flushia loss of appetite headach bowels constipated, the fever begins to abate about the fourth or fifth day the eruption begins to decline about the same time and from two to four days more entirely dispear the cuticle will disquamate after the eruption has declined the period of convalescence is the period in which there is the most danger in this form of Scarlatina the patient very apt to expose himself which will in some cases bring on unpleasant results more to be dreaded than the primary disease

The treatment of Scarlatina simplex
is very simple attena to the bow
els keping them gentally open by
some mild aperient the diet sh
ould be antiphlogistic the room
may be kept cool by admission
of fresh air occasionly to suit
the feelings of the patient or cool
febrifuge drinks may be giving
Second form or Scarlatina Anqin
osa this is a severe form and m
one is to be dreaded from this
than the first It comes on like
S simplex with the exception of
the symptoms being more severe
We have head ach nausea vomit
ing precordial oppression and
muscular prostration very cons
iderable in the commencement stif
fness and dull pains in the sides
and back of the neck Nausia
and vomiting may be the first

Symptoms that attract notice
The eruptions come out about the
second or third day of the fever
at which time the fauces
exhibit a red and swollen app
earance painfull deglutition
Intense heat of skin thirst
Tongue dry and red around the
edges the papilla of the tongue
are elevated above the mucus co
ating which appearance consider
ed by some as pathognamonic of
the complaint the coating of
tongue is white and cream
like the redness of the fauces
is diffused the velum and palate
are covered with white aphthous ine
rustations and when these are rem
oved they sometimes leave ragged
looking ulcerations When the disease
has an unfavourable tendancy the ton
gue becomes clean red and rough

When the throat is much implicated delerium is a frequent attendant When the cerebral symptomes present themselves leeches to the throat will not only relieve the head but also the part to which thay are applied If the patient feels great heat of surface cold or tepid sponging will not only be refreshing but also lessen the Pyrexia, the local venesection must give way to bleeding at the arm if the affection of the head violent and the fever be severe If this forme comes on without any of the more violent symptoms and appears to have a tendancy to run a mild course attention to the bowels keeping them open by gentlet saline aperients washing the throat with astringent gargles and moderating the vascular excitement if their be any tenaceous

to considerable reaction are the in
dications to be fulfilled
Scarlatina Maligna the eruption
in this form if it appears at all
is livid in colour partial and
fades early, It is attended with
the general symptoms of Typhoid
depression a small weak pulse
cold skin brown furred tongue
and extreme vital depres
sion under which the patient
sink in a few hours, In
children the Typhoid symptom
s increase in severity and deep
en in intensity from the com
mencement of the attack and
the fatal issue generally occur
s about the fifth day, The throat
is filled with foul excoriations
which are apt to slough these
in some measure impede respir
ation by partially closing the forces

and nostrils. from the latter and acid discharge takes place which excoriates what ever part of the skin it touches the salivary glands are much swollen and there are a strong tendancy to coma, diarrhea sometimes attend this form the irritating matter furnished by the throat finding its way down the alementary canal the inflamation of the throat extending to the Eustachian tube causes deafness which may or may not be permanent. The primary impression of the poison on the nerves may be so powerful as to cause the death of the patient without to very little affection of the throat or skin The treatment in this case ~~Th~~

should be such as to support the system untill the effects of the poison pass off, give brandy wine & other stimulants. But the patient may sink from the extensive ulcerations of the throat from which no doubt the poison is reabsorbed in to the system - Stimulents and tonics are also given in this condition of of the system whilst gargles are used to clean the throat to prevent the absorbing and swallowing the discharge from the ulcerated fauces - to bring about a new action in the parts and to heal the ulcers a weak solution of soda will correct the discharge and have a most

favourable effect on the ulcers A solution of Chlorate of Potash ℥j to a pint of water is recommended as a constant drink and is said to have a most favourable effect on the tongue and throat. The preparations of chlorine acts probably by depriving the mucous secretion of their infecting properties The bowels should be watched and kept open - Blisters to the neck are of no use unless applied early during the first stage of the affection of the throat at which time they mitigate the violent inflamation of that part During stage of convalescence the patient should carefully guard against cold and fatigue particularly during the period of desquamation as dropsy

will if it comes on at all m
ake its appearance during this
period – those who have had
Scarlatina and have been em
ployed in nursing those sick
of the same disease will in
many cases have a severe sore
throat The malignant form
occurs occasionally as an Epide
mic varying greatly in its fat
ality that of one being great
that of another comparatively
slight The malignant form may
vary in its character It may
be Typoid Inflamitory of the
digestive organs may be prin
cipally affected It may come on
with fever and sore throat
headache congestion of the bra
in and convulsions or severe
Exanthematic pyrexia headache
spinal pains and great imi

tability of the stomach and bowels nausia and vomiting and diarhea are in some cases the first symptom - When convulsions comes on they generally carry the patient off in three of four days these convulsions are more apt to occur when the disease attacks a subject to epeliptice fits - The discharge from the stomach and bowels - When considerable do not appear to lesen the pains of the head and back nor retard the appearance of the eruption - When the disease partakes of the inflamatary nature the pulse are quick from one hundred and twenty to one hundred and forty and the eruption is more of a scarlet hue - the acceleration of the pulse

abate in all cases where an evident improvement takes place — Measures directed against the inflamation is to reduce the pulse and keep the surface as cool as possible that is we would treat it as you would any other inflamation — Amongst the sequels of Scarlatina the most common and quite serious one is dropsey or anasarca of which I have had an occasion to hint heretofore in the first of my subject in this disease I mean dropsey we may have some of the large serious cavetys filled with serum This dropsical effusion appears to intimately associated with inflammation or rather sets in with febrile exacerbation It generally bars no relation to the violence of the preceding

affections It is mostley attended with cough and slight dyspnea which mark congestion or slight inflammation of the bronchal mucus membrane It is said to be more common after a mild attack than a severe one from the fact of the patients taking less care and exposeing himself before the nervous crisis is formed - th dropsical symptoms show themselves about the third week and it occurs almost exclusively in young persons the urine in this as in others dropsies is altered some times albuminous and bloody - the first symtoms show disorder of the muscular system and digestive organs lassitude perish ness

nausea and vomiting costive bowels &c - the pulse is slow at the commencement but increase in frequency as the disease advances, the urine is scanty - pale - face &c Cerebral symptoms are present in some cases marking effusion - these symptoms are violent headach dilated pupils palsey and convulsions &c When the effusion is in the pleura dyspnea is the prominent symptom - When the inflammation is pretty active venesection is proportion to the age of the patient arrest at once the anasarcous symptoms - Depletion is well borne in this affection from its accuring rarley if at at all in severe cases of scarlate fever

for reasons I have heretofore assigned If the affection be light purgatives and diuretics will remove it Digitalis is also considered an excelent diuretic in this complaint also the preparations of Potash such as the Nitrate & Bytartrate It may occasionly happen that patents labouring under dropsy as a sequal of scarlatina cannot bear antiphlogistic measures but generally speaking this treatment is not only well borne but necessary. The Albuminous urin if attended with febrile symtoms it is best treated by Antiphlogestics and diuretics but if attended with no excitement it is a chronic as Idiopathic affection and marked by debility the requires to be treated

with Tonics Opium & Generous
Diet

The End

An
Inaugural Dissertation
On
Scarlatina
Submitted to the Examination
Of the
Provost, Regents & Faculty of Physic
Of the
University of Maryland
For the
Degree of Doctor of Medicine
By
William White
Carroll Co
Md

1849

Scarlatina

This is the term used by pathologists to designate a febrile disease, attended with sore throat, and a scarlet colored eruption. The precise period of time at which this disease first made its appearance, has never been satisfactorily ascertained; some writers suppose it to be of <u>modern</u> origin, in as much as no mention is made of it, in the writings of the earlier Physicians, more particularly those of Arabia, to whom we are indebted for the early history of the severer forms of the exanthemata, such as Variola, Rubeola &c, but, from the facts, now almost universally admitted that it was for a long period of time regarded as a variety of the latter disease, there is no certainty that it may not have had an existence cotemporary with the other varieties of the class to which it belongs; and which, it is supposed first appeared in Arabia, and thence spread into Europe about the 7th Century. Be this as it may, it was not, according to Doctor Wood, until the 16th Century

that it was described by Ingrassias as a distinct disease. Subsequently Coyttar in France, and Morton in England, treated upon it, but not with that accuracy, that distinguished the notice of it, by Dr. Wethering, to whom we are indebted for the first clear description of the difference between it and measles. In the descriptions of Scarlatina, most writers divide it into three varieties, each presenting certain distinct and characteristic symptoms. This is unquestionably, sometimes the case, But the practitioner who undertakes the treatment of Scarlatina, in the expectation of finding its simple anginose and Malignant forms well defined and distinctly marked, according to the description found in the books, will most frequently be disappointed. Such, indeed, is the insensible manner, in which the symptoms characteristic of each variety run into each other, that the young and inexperienced practitioner, will frequently find himself sorely puzzled, to ascertain which form of it he is

about to encounter. But this will be a matter of little consequence, as the disease is essentially the same in all its forms, only modified by attendant circumstances of Constitution, Season, Epidemic influences &c In my descriptions of the symptoms, treatment &c. I shall, however follow the beaten track, and divide it into Scarlatina Simplex, Anginosa and Maligna

Symptoms

1st. The simple form of the disease is commonly ushered in with slight febrile symptoms, such as are common to mild attacks of ordinary continued fever. Upon the second, sometimes upon the the first day of the fever, the eruption makes its appearance in the form of minute red points, which rapidly increase in number, till the entire surface frequently presents the appearance of a continuous scarlet blush. Often, however, the efflorescence is less copious, appearing in patches and leaving considerable portions of the intermediate

skin, of the natural color. It usually appears first on the face, and superior portions of the body, whence it is speedily diffused over the body and extremeties. The skin is generally smooth, but sometimes there is an elevation of the papilla, giving to it a rough and granulated appearance. Along with the eruption, though very frequently preceding it, the patient complains of some degree of soreness of the throat, and upon examination the fauces, are found slightly swollen, and inflamed. The pulse will be found frequent, and sometimes full, but without tension. The skin is hot, and dry, more particularly towards evening; the tongue is generally covered with a white fur, through which the enlarged papilla protrudes in the form of innumerable red points. There is usually considerable thirst with anaresexia, and sometimes nausea and vomiting. About the fourth or fifth day, of the disease the eruption begins to decline,

and is followed by extension desquamation of the cuticle, In some instances the disease is so mild as not to confine the patient to his bed.

2d, Variety. Scarlatini Anginosa

In this form the symptoms are usually more severe, It is ushered in with languor, lassitude, weariness and dejection of spirits. Rigors, succeeded by intense febrile heat of the skin, with great muscular weakness, are now complained of, This condition is frequently accompanied with vomiting, and sometimes, though more rarely, with ~~vomiting~~ purging. Some soreness of the throat, generally precedes the febrile paroxysm and soon increases to such an extent as to render it a most striking and prominent feature of the disease. There is much soreness and stiffness of the jaws - mussles of the neck and the difficulty of deglutition is sometimes so great as to cause fluids, the patient may attempt swallowing to be returned by the nostrils, Upon examening

the fauces, they will be found much swollen and of a deep red color. Portions of the tonsils will be found covered with exudations of lymph, which have the appearance of ulcers, but which may be wiped away, leaving the parts tense, swollen, and of a shining red or purple color. Sometimes, however, ulcerations really do occur. The eruption in this variety is usually later in making its appearance, commonly not occurring until the third day. As a general rule also, it is not so copious or diffused, occurring mostly in scattered patches, though occasionally making its appearance on the first day, and to such an extent as to occupy the entire surface. It also sometimes retrocedes, when delirium, coma, convulsions, or symptoms of severe thoracic or abdominal engorgement supervene, which, unless the eruption be speedily restored, are apt to prove rapidly fatal. When the affection of the throat is severe delirium is a common attendant, - occurring in

some cases only during the night, but in others persisting till a favorable change occurs, or death closes the scene. The tongue soon loses its furr, presenting a deep red and roughened appearance, (the latter occasioned by the elevation of its papilla.) In bad cases, particularly those attended with much delirium, it is apt to become dry. The pulse is seldom under 100 in the minute, and frequently rises to 140 or 180, manifesting at the same time a degree of irritability, similar to that observed in Puerperal fever, but, without the hardness or tension, that characterizes the pulse in that disease. The respiration is hurried, and, when the cause is complicated, with thoracic congestion, sometimes much oppressed. The heat of skin is intense, frequently rising to 106° or 108° of Farenheit. The eyes, and lining membrane of the nostrils, are deeply injected with blood, and, after the eruption appears, the face, hands, and feet, are often sensibly swollen At times, the mucus membrane of the nose

becomes deeply involved, and as the disease advances, are exceedingly acrid and offensive, Sanies is discharged, which excoriates the parts, with which it comes in contact. Desquamation is somewhat later in making its appearance in this than in the simple form of the disease. Patients seldom die of this variety of Scarlatina before the third, and much more frequently, not before from the ~~third~~ 5th to the tenth day of the disease. Not unfrequently however they are carried off at a much later period, by some one of its numerous sequela

3d. Variety

Scarlatina Maligna

In this form of Scarlatina, patients are usually attacked with with Rigors, attended with flushes of heat, dejection of Spirits, faintness, and great oppression of the system, vertigo, or violent pain in the head, are not unfrequent prominent symptoms and these may be accompanied from an early period

with delirium or coma. The temperature of the skin is, in the first stage, generally below the natural standard, or the extremeties may be cooler, than natural, whilst the central portion of the body exhibits increased heat, In the worst cases of this variety, the system appears to be utterly overwhelmed, and the patient not unfrequently dies upon the 1st, or 2d, day of the disease without the occurrence of any effort at reaction Generally, however reaction, in a greater or lesser degree occurs, and a low typhoid form of fever is developed, On the 3d, or 4th day of the disease a scanty efflorescence of a dusky or purple color makes its appearance in scattered patches, frequently disappearing and returning again at irregular periods The pulse, as in the other varieties, is extremely frequent, but most commonly feeble and depressed Sometimes, however, when the reaction is more actively developed, it may, in the earlier stages

exhibit a moderate degree of firmness. The tongue is usually coated with a dark brown fur, which as the disease advances, becomes almost black, whilst, at the same time, the lips, gums, and teeth, becomes encrusted with dark sordes. The throat in the commencement of the attack assumes a dusky, red, or dark purple appearance. Livid or ash colored slough form on the tonsils, occasioning an intolerable fector of the breath, and accompanied occasionally, with extensive ulceration of the fauces. As the disease advances the stupor, if it exists, become more profound, or the delirium, low and muttering, whilst the patient picks at the bed clothes, or grasps at imaginary objects, The eruption exhibits a more livid hue, and is interspersed with vibices or petechia. Hemorrhage from the nose or bowels, frequently accompany this stage, or an exausting diarrhea supervenes, which

if not speedily arrested terminates the existence of the sufferer. In more favorable cases, in four or five days, after the eruption makes its appearance, it begins to subside and with it there is a decline of the delirious symptoms. The sluffs in the throat separate and the patient gradually enters on a slow and protracted convalescence. I have now given an example of each of the forms which scarlatina may assume, but the phisician in his practical intercourse with the disease will rarely find the varieties so distinctly marked, as here represented. Remarkable deviations from its usual course, are sometimes observed, during the prevalence of an epidemic of scarlatina. It is a singular fact, aggravated cases of the disease occasionally occur which run through its various stages without the slightest affection of the throat being manifested, and vicaberea

cases, in which the febrile and anginose symptoms are strongly developed, without the appearance at any time of any eruption whatever. It is supposed by some writers, that in the former cases, patients may, during a subsequent epidemic, be attacked with scarlatinous sore throat, but without fever or eruption, whilst in the latter case, they may have the eruption without the anginose affection.

Sequela

The sequela of scarlatina, are at all times troublesome, and sometimes formidable, occurring as they do, in systems already shattered by a severe and prostrating disease, and frequently dependent on deep seated organic lesions, it is not a matter of surprise that they are viewed with apprehension by the practitioner, and occasionally baffle the best directed efforts of his skill. Even where an ultimately

favorable termination may be confidently relied on, we must be prepared for a tedious and protracted convalescence. The particular sequela of Scarlatina, which perhaps ranks first in importance, is dropsy. This affection generally makes its appearance towards the termination of the process of desquamation and sometimes after it has been completed. Its usual form is that of anasarca, although the other varieties, more particularly Ascites are occasionally observed. It is accompanied with heaviness or drowsiness, sometimes almost amounting to stupor - a furred tongue, Febrile simptoms, thirst, Costive bowels &c,
The pulse is not unfrequently sharp and excited, The urine is scanty and albuminous. It sometimes terminates by fatal effusions, into the cavities of the chest, ~~and~~ or brain - but the majority of cases will terminate favorably under judicious treatment. Diarrhea is another

of the evils following in the train of Scarlatina, and frequently proves exceedingly annoying to the phisician and exhausting to the patient. It is probably sometimes dependent on an inflamatory condition of the mucus follicles of the intestines, though it is perhaps not unfrequently the result of intestinal debility. Abscesses of the parotid or submaxillary glands sometimes occur - Or inflamation and ulceration of the internal ear, accompanied partial destruction of the tympanum, and bones of the ear, and eventuating in partial or entire deafness, are among the sequela which will be found obstinate and fistulous.

Causes

Scarlatina is generally supposed to arise from a specific contagion having a latent period of from three to ten or twelve days. That it may, and perhaps, generally

is propogated by means of a contagious principle generated in the systems of those labouring under it, I am not prepared to deny. But, although willing to acknowledge the proposition generally, I cannot admit as applying universally. If we reject the supposition that scarlatina, may sometimes be occasioned by a combination of peculiar atmospheric influences, insentable perhaps to human observation, and maintain the assumption that it is always the result of a specific contagion, I am at a loss to perceive how we shall be able to account for these sporadic cases, which occasionally occur in the practice of most phisicians, or of those epidemics, which occasionally arise in a particular, section of country, the first cases of which cannot be traced to a communication with any infested person or district, As bearing on this point. I will state some

facts related to me, by my preceptor Dr. J-
E. H. Ligget, which occurred in his own
experience with this disease. In the winter
of 1844 and 5 he encountered an epidemic of
Scarlatina. The first three cases that fell
under his observation, and which occurred
almost simultaneously - were distant from
each other from six to eight miles, and in
neither case, had the patient been to any
place where Scarlatina existed, The disease
gradually spread from the Circumference to
the Centre, until nearly every family in the
neighborhood, was invaded - it finally
disappeared in the latter part of march 1845
It is generally supposed that the contagion
may be carried in the clothing of the atten-
dants &c. But, although the Dr. was in daily
attendance upon a large number of patients
in every stage of the disease, and did not
take the precaution of changing his

clothing, before handling his own child, a little girl of two years of age, ~~after~~ she did not contract the disease for nearly two months after its introduction into the neighborhood. Very few malignant cases occurred during the prevalence of this epidemic, and, as before remarked, it disappeared from the neighborhood entirely about the latter part of march. The following octobe the disease suddenly reappeared in an extremely malignant form, and at a time, when no cases existed within several miles of the neighborhood. Only five or six cases occurred when it as suddenly disappeared. To account for these isolated cases, on the principle of a contagious origin, we must revive the exploded doctrine, that contagion may exist, for miles in a state of inertia for months or years, until called into activity by some favorable exciting cause.

Whilst these facts would seem to indicate that the disease, may, under certain circumstances, originate and extend itself independently of a contagious influence, yet the well known fact, that as a general rule, it occurs, to an individual but once in life, shows that it is allied, in some degree, to Varola, Rubeola, and other affections known to be of a contagious nature. I deem it therefore a fair inference, that it may be propagated, both by a specific contagion and atmospheric influences

Pathology

Dissection has revealed the fact, that the mucus membrane of the alimentary canal is the principal seat of Scarlatina. The affection of the skin which has by some been regarded as constituting the disease is to be looked upon in the light of a mere simptom, which, however, exerts

modifying influence over the internal disease. The eruption acting as a counter irritant, diverts the circulation from organs essential to life, to the surface, and in that way relieves or prevents internal congestions or inflammations. Hence we find that in the simple form of the disease, when the efflorescence upon the skin is copious there is but little visceral distress, and the patient suffers but slightly, except from the effects of the cutaneous irritation, whilst in the anginose and malignant varieties, where the eruption is more scanty, and later in making its appearance, the affection of the mucous membranes is correspondingly severe, and the disease is frequently accompanied with dangerous and sometimes fatal inflammation, or congestion of some of the vital organs. To prove that this view of the pathology of the disease is well founded, let us examine the phenomena which it presents in its earlier and more advanced stages. Upon the first attack of the disease

and before the eruption has made its appearance, the patient is dull, heavy, and dejected - the breathing is oppressed, the countenance anxious, the mind torpid, and the functions of animal life appear to be greatly depressed, upon the appearance of the efflorescence in the simple form of Scarlatina, the patients are frequently so much relieved as to run about the room, during the whole subsequent course of the disease, and even in the several forms of the affection, although the heat, restlessness &c are frequently so much increased as to lead the unprofessional observer into the belief that the patient is really worse, yet the experienced eye, of the veteran practitioner will at once detect the relief that has been afforded to the viscera, by the translation of a large proportion of the blood with which they had been engorged to the surface; whilst he will readily account for the increased restlessness and

irritability of the patient by the inflammation of the Cutis involving the sentient extremeties of the cutaneous nerves. In a still more advanced stage of the disease after desquamation has commenced, if that process is carried on regularly the patient is not liable to the severe and dangerous sequlæ, which usually follow its interruption. The explanation of this may be found in the fact, that whilst desquamation is going on, a large supply of blood to the surface is necessary in order to regenerate the Cuticle, which is being removed. Any circumstance which interferes with that reparatory process, occasions a repulsion of the blood from the surface, and visceral engorgements result as a necessary consequence. The organs which most frequently suffer in scarlatina, are the brain liver stomach, bowels and lungs.

Diagnosis

When Scarlatina first makes its appearance in a neighborhood, it is very difficult, if not impossible, to recognize it in its first stage, before the appearance of the eruption in as much as its early simptoms greatly resemble those that attend several other forms, of fever. When the disease is known to exist in a neighborhood, it may generally be distinguished, previous to the eruption, by the accompaning affection of the fauces - by the extreme frequency and irritability of the pulse and by the enlarged papilla of the tongue, which may be seen protruding in the form of innumerable red points through a white fur. After the appearance of the eruption, it is liable to be confounded with Rubeola, Rasseola & Erythema. From the former affection, it may be distinguished by the

absence of the catarrhal affection, the sneezing, coryza and intolerance of light, and by the existence of the faucial affection. The eruption in Scarlatina generally appears one or two days earlier than in measles, is more uniformly diffused over the surface, is a brighter red, and does not present so much roughness of the cuticle. In measles the eruption is of a darker color, more elevated, and arranged in irregular crescentic patches, with intervening spaces, in which the skin preserves its natural color. Roseola & Erythema may be known by the absence of the anginose affection, and of the enlarged papilla of the tongue - also by the eruption appearing more in circumscribed patches, and frequently being confined to one part of the surface. In Scarlatina, the accompanying constitutional disturbance is more severe, and observes greater regularity in the progress through its various stages.

Prognosis

Our prognosis in Scarlatina should always be guarded, as there is, perhaps no disease, in which greater uncertainty as to its progress and termination exists. We should be governed principally, by the severity of the symptoms, and the character of the prevaling epidemic. If the latter be mild we may in ordinary cases, usually prognosticate a favorable result, but if the epidemic influences to the disease, either a highly inflamatory or malignant type, be must be extremely careful and cautious, even in mildest cases, as these frequently assume, very suddenly a most formidable and sometimes fatal aspect. Severe inflammation, ulceration, or sloughing of the throat, with a scanty and purple or livid eruption indicate a very dangerous form of the disease

Continued delirium, convulsions or coma with hemorrhages, from the nose and bowels, and colliquative diarrhea, are regarded as extremely unfavorable symptoms, and such as would induce any discreet practitioner, not to risk a favorable prognosis. A great tendency in the eruption to retrocede, together with the supervention of severe inflammation or congestion of vital organs, may also be considered unfavorable. The early appearance of a copious eruption, together with the absence of unfavorable symptoms, here enumerated, or their gradual decline, when present, indicate a favorable issue.

Treatment

In the simple form of scarlatina, a very mild treatment is all that is generally required. Gentle laxatives, such as Rhenberb., magnesia or castor oil, daily repeated with cooling drinks, alkaline diaphoretics, and a mild and unirritating regimen, are, in general, all that is

required to carry the patient safely through the disease. In the other varieties, great diversity of opinion has existed among the most distinguished members of the profession. Whilst some advocate, in the anginose form, an immediate recourse to active antiphlogistic remedies, among which venesection, cold affusions, Calomel, Jalap, and other drastic purgatives hold a prominent place, and even maintain that if this course were always pursued on the first accession of the disease, it would prevent symptoms of malignancy. Others maintain that in all its forms it possesses an asthenic tendency, and, as a matter of course, an antiphlogistic treatment is inapplicable. This class of practitioners, therefore urge an early recourse to stimulants and tonics. As I have before remarked, atmospheric influences appear to exert a modifying influence or effect upon the disease, requiring corresponding modifications in the treatment. Thus in one

Epidemic the disease assumes a highly Sthenic character, in which a moderately depleting and cooling plan of treatment is well born, whilst, in another the tendency is decidedly asthenic, and an early recourse to a supporting plan is rendered necessary. To this fact may be ascribed the differences of opinion adverted to. From what I have seen of Scarlatina and its treatment I am led to believe, that it is essentially a disease of irritation; and, that even in cases, where active visceral inflammations exist, the accompanying irritation (which is a natural incident of the disease), exerts an influence on the general system, so decidedly depressing, that actively depleting remedies, such as are usually indicated, in the phlegmasia, are not well born. In extensive burns and scalds, where a large extent of surface has been involved we know that internal inflammations, more particularly of the lungs, or brain, is not of

unfrequent occurrence. Yet such is the depressing effects of the irritation, resulting from the cutaneous inflammation, that active antiphlogistic measures would rapidly exhaust the excitability of the system, and sink the patient. Thus it is in Scarlatina. The inflammation of the Cutis which is so profusely furnished with nervous filaments, from the cerebra spinal system, is so extensive that excessive irritation, as before remarked, is a natural incident of the disease. Now Dr Marshall Hall, has amply demonstrated that in inflamatory diseases, accompanied by excessive irritability of system, the lancet is not so well born, as in those pure forms of phlegmasial disease in which the nervous system is not essentially involved, and even when used at all, it should be at the accession of the disease, before the energies of the system had been greatly reduced, by the accompanying irritation. Thus in

puerperal fever where the system is left in an exceedingly irritable condition, by the parturient process, we find that the lancet is only admissible, in bad cases, within the first 24 hours, after the development of the disease, If longer postponed, so rapidly exhausting to the system is the irritant action, that the patient readily succumbs under its use. These principles, I humbly conceive, should govern us in the treatment of scarlatina. If in the anginose form, inflammation of a vital organ be developed in the commencement of the attack, more particularly if the eruption have not appeared, or having appeared is very scanty, a cautious use of the lancet is advisable. But if inflammation supervene at a later period of the disease, especially if the skin be occupied by a copious efflorescence, accompanied by a great frequency of the pulse, excessive restlessness &c. I should vastly prefer trusting to leeches

heroic remedies. If under such circumstances I should deem the abstraction of blood advisable at all, I would take it locally, when spontaneous vomiting does not occur at the commencement of the attack, to a sufficient extent to relieve the Primæ Viæ from offending and irritating matter, that result should be brought about, by an emetic of Ipecacuanha. Afterwards a few grains of Calomel may be given, to be followed, in a few hours, if necessary, by a dose of Castor Oil. Subsequently the bowels should be daily opened, by some one of the milder cathartics such as Oil Ricini, Pul, Rhenbarb, magnesia &c, may be used every one, two, or three hours, according to the intensity of the febrile action. When there is great dryness and heat of the skin, with restlessness &c some writers advise the cold affusion. It may answer well in some cases, but from the tendency of the eruption

to retrocede, it will perhaps be more generally advisable, to simply sponge the surface with a tepid mixture of vinegar and water. Should typhoid or malignant simptoms supervene, we must be prepared to reverse our course and the carbonate of ammonia, serpentaria, whey of wine or wine and water, capsicum annuum &c must be substituted for the refrigerants before enumerated. Indeed, in the low malignant form, of the disease this treatment is required almost from the commencement of the disease. The best to counteract nervous symptoms are valerian, camphor &c, In this condition of the system, the diet should be nourishing and digestible, such as animal broths and jellies But whilst using stimulants, we should not neglect to support the system by remedies of a more permanent character. For this purpose, we have perhaps no remedy superior to sulphate of Quinine

held in solution, by means of the dilute sulphuric acid. When the inflammation runs high in the fauces, leeching sometimes becomes necessary. Some writers recommend blisters, but the application of the compound Camphorated Liniment, is, perhaps preferable, as an internal application to the inflamed fauces. Various gargles have been prepared, but independently of the difficulty of gargling the throat of small children, the attempt to do so frequently increases irritation. A more soothing application, where the age of the patient enables us to use it, is the inhilation of the vapor of hot water, or vinegar and water - the infusion of hops or chamomile flowers. But in cases where the inflamatory action is of a low grade with a tendency to ulceration or sloughing, stimulant application to the part becomes necessary and important. Here a gargle of capsicum, or penceling the throat with nitrate of silver, will be found to be of decided advantage. In cases attended

with sloughing, the suppuration of the sloughs may be promoted, and the fetor may be corrected by the application of creosote. During the stage of convalescence, the patient should be strictly guarded against the vicissitudes of the weather. The diet should be mild and uninvitating, yet nourishing, and the bowels kept moderately open. Should there be much debility, a course of tonics will be required during convalescence. In reference to the treatment of the sequela of scarlatina, we must be governed by the pathological conditions of system in which they occur. They, most usually, do not appear until after the desquamation of the cuticle, has become completed, or nearly so, and consequently after the extreme irritability of the system, attendant on the affection of the skin, has subsided. Under these circumstances if the patient have acquired a considerable degree of strength, or even a moderate degree

These secondary affections assume, generally, an inflamatory character, and the patient will bear depletion, better than in the original disease. Thus the dropsy following scarlatina, is frequently of so inflamatory a grade, as to demand the use of the lancet, although, more commonly active purgation, alternated with diuretics, will be found all that is required to affect ~~that~~ a cure. In the diarrhea, consequent upon attacks of scarlatina, we must be careful to ascertain whether it depend on an inflamatory condition of the mucous membrane, and its follicles, or whether it be the result of intestinal debility. In the former case, we must have recourse to leeching the abdomen, the warm bath, blisters, anodines, gum water, and a spare and unirritating diet; with the application of a broad flannen roller, round the abdomen will be indicated. In the induration of the glands of the neck

an attempt may be made to discuss them, by the internal and external use of Iodine or some of its preparations, with an occasional purgative. Should suppuration however appear inevitable, it must be promoted by the application of emolient poultices, and as soon as the suppuration has sufficiently advanced, the matter may be evacuated, by an incision with the lancet. Any remaining indication may be discussed by the use of Unguent Potassi Iodi.

I have now endeavored to give the general principles of treatment, that should govern us in its magement, I trust however this may be deemed sufficient for the present, and I now submit this treatise to the consideration of those who are to sit in judgment, on its merits, hoping the doctrines advanced in it, may be found in accordance with the principles of modern pathology.

This essay is respectfully

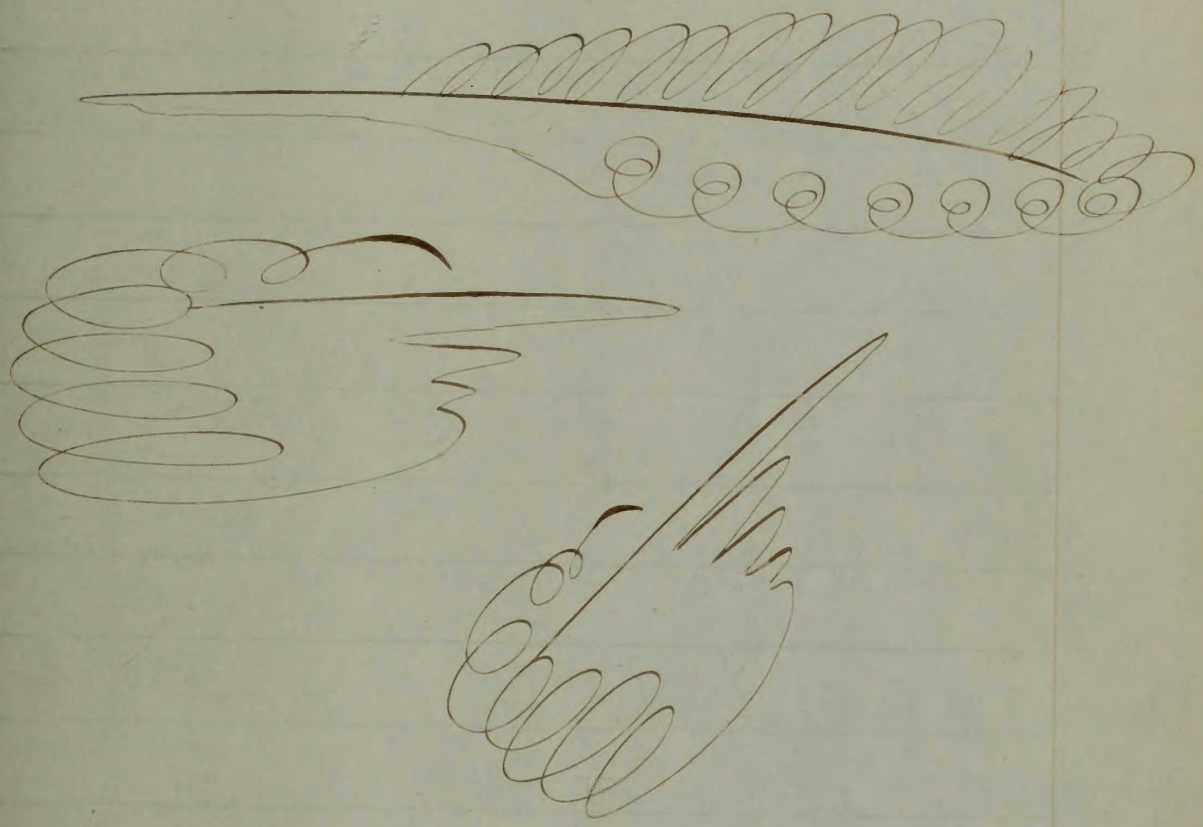
dedicated by their obliged friend and

pupil

The Author

dedicated by their obliged friend and pupil

The Author



An Inaugural Dissertation On Pneumonia;

Submitted to the Examination of the Provost, Regents and Faculty of Physic, Of the University of Maryland, For the Degree of Doctor of Medicine,

By Louis F. Nelson, Of Maryland.

Session 1879.

Pneumonia

This disease consists essentially, and wholly of an inflammation of the parenchymatous tissue of the lungs, and is "Par excellence" the acute disease of the lung. It received its name from this, and is called also Pneumonitis, which may be the most correct name. It is divided into several varieties, only two of which ought to be made, and these on account of their pathological conditions being different, are Lobar and Lobular. Lobar Pneumonia is when the whole of one or more lobes of the lung ~~are~~ is affected. Lobular is when one or more of the lobules are inflamed. This disease is common to all countries, and is liable to be complicated with other diseases either occurring primarily and assuming a different type, or being secondary and intermittent

as in intermittent and typhoid fever and often Bronchitis. There are several general rules as to the frequency of this disease, in males and females in adults and infants and of the different varieties. Men are more subject to it than women, It is more fatal in them probably owing to their being more exposed to its exciting influence, cold damp air and the vicissitudes of the atmosphere. Lobar Pneumonia occurs more frequently in children up to eighteen months or two years of age, and again from the age of six years until a man has gone well on in his downward course. Lobular Pneumonia most commonly happens in children from two to six years and again, when we enter the period of the "lean and slippered pantaloons.

It is often complicated with other affections of the lungs, which though they may be very interesting of themselves, are foreign to the plan proposed to ourselves in writing this thesis.

The symptoms of Pneumonia are mostly those of high febrile excitement. The disease generally sets in with a chill followed by febrile reaction. With cough, difficult breathing, and severe pain in the side and back of the chest, severe frontal head ache, flushed face, a dark halo around the orbit, and a red spot generally on the cheek of the side affected, the tongue is much furred and coated. The cough is harsh and very painful, the dyspnoea excessive and accompanied with pain on inspiration. This pain

when in simple Pneumonia is not acute, but rather of a dull aching character, there is also a general disturbance of the whole system. When the disease has lasted for one two or more days, the cough is free and loose and the expectoration has a peculiar rusty appearance. a viscid adhesive character which when once seen can never be mistaken. After this we have a decrease of the fever, the pulse becomes small and weak, the face loses its peculiar flush, the cough brings up a purulent stinking purulent like fluid, the extremities become cold. and death closes the scene, the patient retaining his senses till the last. This is the course of the symptoms in the worst and most fatal cases of the disease, but fortunately

its care that if cure left to itself that Pneumonia will run this fatal course, After the disease has existed for five or six days the fever declines, the head ache passes off the dyspnoea is lessened. the sputa loses its rusty tinge, and gradually the patient recovers with a slight cough and pain in his side on taking a deep inspiration. Were these the only diagnostic marks that we have to rely on for the discrimination of this disease our diagnosis would be by no means easy.
Auscultation and percussion yield us other proofs, certain and indubitable. Sydenham Hunam and others who had not these aids have given us excellent treatises on this disease, though they confounded it with

Pleurisy, with which in fact its most generally complicated, fortunately of late years, since the school of observation has caused more attention to be given to the post Mortem changes in disease and accompanying symptoms in life, has established each as a seperate and distinct disease.
Before entering upon the Physical signs it would ~~not~~ perhaps be better to give a brief account of their changes from the normal state that we find in the infant lung after death. In the very incipiency of the disease there is according to Dr Stokes of Dublin a dry & swollen condition of the ~~lung~~ ~~mucous~~ ~~and~~ mucous membrane of the vesicles, and of the ~~bronchial~~ bronchial tubes, however as death never occurs in this stage of the disease it is not possible to ~~modify~~ define this

statement, the first anatomical condition that we meet with is, that of engorgement, the engorged part is heavy and filled with a bloody frothy serum, is heavier than the healthy lung, but still ~~crepitates~~ floats in water, upon squeezing it with the fingers it still crepitates and pits on pressure, the vesicles are not entirely filled with serum but are still permeable to the air. The next ~~stage~~ appearance that we find is the congestive stage becoming more solid and not permeable to the air, of a reddish brown colour, having the lobule of the lung clearly marked, sinking in water, not crepitating on pressure and pouring out a fluid not so frothy and thicker than in the first stage. This the hepatized stage papes sometimes

into another, the stage of gray hepatization or into an abscess, the first is by far the most common. the portion of the lung thus affected is softer than in either of the two former stages, breaks down under the fingers, sinks in water and upon being cut drops of pus exude from its surface, the color is grayish yellow, the lozenge shape lobules of the lung are distinct, the abscess above mentioned are of rare occurrence they seem to be mere breaking down of the hepatized mass. and can be distinguished from tuberculous abscess by the want of their peculiar connections on the sides of such cavities.

Having thus run over the Pathological changes in the lung in this disease, it may be well

before we enter into an explanation of the physical signs pertaining to each stage, to give a few of the symptoms of each. The most to be relied on is the sputa and then the state of the pulse. In the first or congestive stage, the cough is slight, the sputa scarce, the febrile action high. In the second the general symptoms are the same, but have in addition the rusty viscid sputa so characteristic of this disease alone, In the third or suppurative stage, the sputa is like liquorice water, the face pale and pulse feeble. The physical signs of this disease are best considered after the pathological changes are well understood, and I have endeavored to make them as plain as possible. The mode of

eliciting the signs is threefold, by percussion and auscultation. The mode of doing this, I'll by no means necessary to mention.

In the first stage of the disease that of congestion, we have slight dullness on percussion, that only a well practised ear can detect it. And a sense of diminished elasticity is given to the finger of the one percussing. Auscultation has rendered to her sister great and valuable aid. The healthy vesicular murmur can not be heard, but at the end of each inspiration. There is a sound heard, something like that produced by throwing salt on a hot shovel or by rubbing the hair between the fingers, called fine crepitation, this is the characteristic sign of Pneumonia, and when

heard, is a sure and infallible sign that the disease is in its first stage, or as Dr Stokes of Dublin insists in its second. When the disease has continued for sometime we lose this sound and hear others usurping its place and indicating, with almost as much certainty the hepatized stage. In this stage we have the bronchial respiration heard, this sound is loudest when the inflamed parts are in the immediate vicinity of some of the larger bronchial tubes, this sound is sometimes mingled with fine crepitation of the first stage giving rise to sounds which have been compared to the tearing of shreds of silk. The lung being solidified and consequently a better conducting

medium for sound, we have increased vocal thrill and the ear perceiving called the Bronchophony. We have also of course complete dullness on percussion. The signs in the third or suppurative stage, as shown by percussion and auscultation, are principally similar to those given out in the first stage, save that the presence of purulent liquid in the bronchial tubes might give rise to sub mucous rale. If the disease however does not pass from the second to the third stage, but back again to the first, we have the sounds of this stage commingled with those of the first.

Treatment. The chief anchor in the treatment of this disease, is bleeding this has been carried to a great excess by Bouyer in

France, who bled sixteen ounces in the morning, sixteen at night, sixteen the next morning, sixteen at night, twelve the next morning, and twelve at night, twelve the next morning, and eight at night. Dum professor of practice says, that in his hands he did really see as many recover under this treatment as under any other, but this plan is attended with the inconvenience of a protracted convalescence and a liability to frequent relapses. Bleeding in the first stage acts directly upon the congestion by diminishing the quantity of blood that must necessarily ~~pass~~ be continually passing through it. Besides I general bleeding, he have local, by cups or leeches, but this I think have better not be used if possible on account,

of the patients having to be so much exposed whilst nursing them.
Another mode of increasing the quantity of blood which circulates through the lungs, in weak and debilitated patients is to ligature the extremities, as was first suggested by Dr Thomas Buchanan of this City whilst yet a student, and which is now recommended by our own professor Power. Though it may not be advisable, to adopt according to Boyers formula, still blood should always be drawn from a large orifice until decided impression is made upon the system, it should not however be carried so far as to produce syncope as the subsequent reaction would prove injurious. This the first venesection should be repeated during the course of the case whenever the

increased activity of the pulse demanded it. The activity of the pulse alone is by no means to be relied on implicitly, as sometimes a small corded pulse, and cold extremities, are relieved, as soon as the blood begins to flow, blood continued by observing the pulse, if it rise continue, if it fall stop the orifice instantly. Another method of treating Pneumonia was instituted by Rasori in the year 183. and has since been in extensive use on the continent of Europe, but has only in the last few years been in anything like general use in our own Country, our practitioners were either so well satisfied with other plans that they did not wish to try any other. This the contra stimulant treatment for Pneumonia consists in giving large doses of tart antimony until toleration is established, which is.

generally the case after the first one or two doses. Rosari gave it in immense doses, even as high as three drachms in the twenty four hours, but this is immoderate, one grain to two may be given every hour for eight or twelve hours in severe cases, in milder cases milder doses. This treatment should not be used to the exclusion of the lancet, but should be preceded by it in cases when the ~~activity of the pulse~~ antimony produces violent emesis or purgation it should be guarded by small doses of laudanum. This medicine cannot be given for a short time and then discontinued, for then symptoms of inordinate reaction are apt to ensue, it must be continued for some days and gradually decrease the dose. Its nauseating effects according to Elliotson may be prevented in a

great measure by giving one or two drops of the officinal hydrocyanic acid, there is some danger in this bold use of a most deadly poison, it is possible that great and fatal prostration may occur, or great and uncontrolable irritation and inflamation of the alimentary canal may ensue. In small doses as an adjuvant to the lancet tartar emetic is of the greatest use. The course of treatment used in this county is the combination of the two already mentioned joined with some mercurial preparation, first, a free venesection and this when the disease is in the first stage will often cut it short, so that one or two more visits to the patient we may find him quite recovered. The common nitrous powder is one of the the best powders. It is highly important to push the mercurial treatment up

to ptyalism. In the latter stages of the disease when we have symptoms of great debility accruing this antiphlogistic treatment must of course be thrown aside, and recourse had to stimulants and nutritious diet. There is one thing to be strictly observed namely, that in cases occurring in intemperate persons its of the utmost importance, that they should not be deprived of their accustomed stimulant. In lobular Pneumonia there is no peculiarity of treatment to be pursued, calomel is the best remedy after the lancet when it can be borne. In infants leeches should be substituted for the lancet, the most important indication is to give stimulants, as carb Ammonia &c. sufficiently early and not to carry the depressing treatment to far. I have abandoned speaking of those diseases with which Pneumonia

is so often complicated, as each single case is of itself worthy of a complete thesis, and I do not feel myself privileged to trespass further gentlemen, upon your time and patience.

Professor Samuel Chew I have taken the liberty Sir to dedicate respectfully to you this thesis as the only testimonial of esteem and respect which is in the power of a student to give to a professor and though the offering may be unworthy still Sir believe me the heart is most willing. Amen

"Mens sibi conscia recti &c."

An Inaugural Dissertation on
Acute Pleurisy
Submitted to the Examination of the
Provost, Regents and Faculty
of Physic of the
University of Maryland,
For the Degree of Doctor of Medicine
by
Hedij Dentine
of
Maryland.

Acute Pleurisy

Like many of the technical terms used in medicine, the word Pleurisy is derived from the Greek - πλευρὰ, meaning the Side. In Ancient times, this term was used to express any acute pain of the Side, without regard to the character of the tissue involved, provided there was accompanying fever. In Modern times, it is restricted to signify inflammation of the Serous membrane, which lines the walls of the chest and invests the organs of respiration. Frequently inflammation attacks both the parenchyma of the lung and its investing membrane. The great frequency of this complication led many to suppose that the one could not exist without the other. Modern Pathology has demonstrated the contrary, and clearly proved that they exist as separate diseases. When combined, we apply the terms Pleuro-pneumonia, and Pneumo-pleuritis, according as Pleurisy or Pneumonia predominates.

As it is customary, in writing upon diseases of the

chest to consider first, their morbid anatomy, in order the better to appreciate their symptoms, and physical signs, as well as to arrive at the most rational treatment, we will also pursue the same plan in our remarks upon Acute Pleurisy. The anatomical characters, which present themselves in this disease, are redness of the pleura, alterations of its texture and secretions, and displacement of the lungs & neighboring viscera, by the accumulated fluid. Redness is not always observable, when seen however, it is mostly in the first stages of the disease, and is owing to congestion of blood in the capillary vessels of the subserous cellular tissue, being either diffused or circumscribed in appearance. The pleura, when inflamed is but slightly, if at all, thickened; its apparent thickening is dependant upon the deposit of lymph forming false membranes, or upon the infiltration of serum and upon the capillary congestion in the subserous cellular tissue. Softening and ulceration are rarely met with.

In health, the quantity of serum secreted by the pleura is small, being just sufficient to lubricate the opposed surfaces of its pulmonary and costal portions. But when inflammation supervenes, the quantity poured

out is increased, and frequently altered in its character. According to Laennec & Williams this increased secretion takes place at the very commencement of the attack; other pathologists maintain that there is first a diminution of the secretion, lasting from two or three hours to the same number of days, after which it is preternaturally increased. The quantity of fluid secreted by the inflamed membrane varies from an ounce to a quart and even more. As it increases, it accumulates in the lower part of the thoracic cavity, & gradually augmenting, it pushes the lung upwards and backwards towards the spinal column, compressing it at the same time. The diaphragm yields to the superincumbent liquid and is weighed down forcing the liver and spleen out of their normal position. The accumulation is sometimes so great that the heart is thrust completely from its place, and its beating may be felt on the right side of the sternum. The effected side is also increased in circumference, and the intercostal spaces sometimes obliterated. As regards the nature of this effused fluid, it is very various. In some cases, we find it to be a clear watery serum; after active inflammation, it is more generally turbid, sometimes with flakes of lymph floating in it. Again

it may be an admixture of serum & pus, or pus alone. Occasionally it contains blood. Its odor may be fœtid, but it is generally slightly nauseous.

Another important and interesting effect of pleurisy is the formation of false membranes. Let us briefly consider the manner of their formation. Lymph is first poured out from the inflamed pleura upon its surface, and presents the appearance of a soft and grayish matter, which presently becomes hard. Red spots appear in it, at first few in number but soon becoming more and more numerous. They lengthen themselves and unite with each other, and thus form minute blood-vessels, which become continuous with those of the pleura and participate in the general circulation of the blood. That which was effused lymph, has now become an organized membrane, endued with vitality. These false membranes present themselves under many various forms. Sometimes they exist in great quantity, lining the whole cavity of the chest, and covering the entire lung, or we may find them in separate and small spots resembling tubercles, or in patches, and not unfrequently, we find them forming bands of adhesion between the lung & the sides of the thoracic

cavity. Their thickness also is no less variable, seldom less than that of the pleura, and cases are recorded where they were formed an inch thick. The false membranes impede the motions of the lung. They rob it of its liberty, and frequently lay the foundation for the deposit of tubercles.

The effusion of liquid and the formation of adventitious membranes produce most important changes in the lung, both in its position and structure. As we before remarked, the accumulating liquid press it upwards & against the side of the vertebral column. When the effusion is abundant, it compresses the lung into a small thin lamina, & if in this state, it should be covered over & concealed by false membranes, an inexperienced observer might suppose that the organ had entirely disappeared. But a careful examination will always be successful in finding it. And not unfrequently, it may be made to resume nearly its original size by inflation. From the compressing force to which it has been subjected, it becomes more dense, less crepitant than natural, and resembles somewhat the fœtal lung. Sometimes, its vesicular texture is found to be obliterated and its density remarkably increased, resembling not a little a piece of muscle. To this appearance the term carnification

has been given. Having pointed out the anatomical characters of Acute Pleurisy, we will now briefly dwell upon its general Symptoms, which are Cough, oppression of the breathing, pain in the Side, and fever. The febrile excitement is generally very great and mostly accompanied by a hard pulse. The pain of the Side is very acute and decidedly the most constant Symptom. Patients represent it as extremely intense, sharp and lacinating. It is always felt a little below the mamma, concentrated, as it were, in one spot, and is generally increased by pressure and the movements of the patient. The respiration is short and hurried. The patient instinctively abstains from taking a deep breath, on account of the acute pain that would be occasioned, and in order that the balance, between the air taken into the lungs and the blood sent there to be decarbonized, may be preserved, the number of respirations is increased. The compressed state of the lung from the effusion contributes also to increase the dyspnoea. This last circumstance is not always a cause of difficulty of breathing, for auscultation has in some instances detected a large quantity of liquid in the thoracic cavity, without any dyspnoea whatsoever - The lung in this case having had time to accommodate itself to its confined situation. Cough when

present is short, being either dry, or attended with mucous expectoration, and sometimes with rusty sputa, showing thereby the presence of pneumonia. Another symptom which must not be forgotten, is the decubitus, that is, the posture in which the patient lies. As is well known there is a great diversity of opinion upon this subject among observers. Upon careful examination of various standard writers upon Pleurisy, and from what little has passed under our own observation, we think that the decubitus in this disease is not constant, but that generally, in the commencement of the attack, when the pain in the side is severe, the patient for fear of aggravating it by pressure, lies upon the unaffected side, or upon the back. But afterwards when the pain has ceased, and the effusion compresses the lung and renders it impervious to air, lying upon the sound side would increase the dyspnoea instead of affording relief, for the unaffected lung needs all the expansion it is capable of to compensate for the loss of function on the opposite side, consequently the patient turns upon the affected side or upon the back. Such are the general symptoms, any one of which or more may be absent; even when all are present, how uncertain would be a diagnosis founded upon them alone, for they are also applicable to pneumonia. But

we have other signs, which will unerringly guide us in making out a diagnosis. We allude to those signs afforded by percussion and auscultation. The first, that we shall notice, is the diminution of the vesicular murmur on the inflamed side. This may be occasioned by several different causes, by the effusion of serum compressing the lung, by false membranes or by the acute pain in the side embarrassing the action of respiration. This sign is also observed in Vesicular Emphysema, Pleurodyne, and other affections, and is valuable only by considering the circumstances under which it occurs.

The accumulation of fluid in the thoracic cavity furnishes important diagnostic signs to the auscultator. Upon percussion, he finds the natural resonance and elasticity of the chest impaired. The sound elicited is dull, which is first perceptible at the base of the cavity, for owing to its specific gravity, the liquid seeks the lowest place and presses the lung upwards. As the accumulation increases, this dulness of sound extends upwards and sometimes occupies the whole of the affected side, thus showing that the effusion has entirely filled the cavity. Dulness on percussion is observable in another acute disease, which might be confounded with Pleurisy-

we mean pneumonia, and how are we to distinguish? In the first place, dulness occurs much sooner in Pleurisy than in pneumonia, because in the former, the effusion frequently begins in the very outset of the attack, or supervenes shortly afterwards, whereas in the latter disease, the solidification of the lung takes place gradually & slowly, and the diminution of resonance likewise occurs pari passu. Besides, pneumonia is always preceded by crepitant ronchus and generally accompanied by rusty sputa.

If the effusion be poured out suddenly and abundantly, the vesicular murmur ceases to be heard in every part of the chest, except about the roots of the lungs, or perhaps under the clavicle where the lungs are frequently bound to the sides of the chest by false membranes prior to the attack of pleurisy. But if the effused liquid accumulate slowly we will find the vesicular murmur becoming gradually less and less audible until it entirely disappears. Whilst this is taking place, the breathing in the sound lung becomes louder and ~~from~~ its resemblance to that which we hear in children, it is called puerile respiration.

The disappearance of the respiratory murmur and,

natural vocal resonance is succeeded by a certain modification of the respiration and voice, respectively called Bronchial respiration and Bronchophony from their originating in the bronchial tubes. The lung being compressed and increased in density by effusion, its vesicular structure is obliterated, so that the air cannot penetrate beyond the larger bronchial tubes, and the sounds originating in them are transmitted to the ear of the Auscultator much more clearly and distinctly, in consequence of the tissue of the lung being rendered a better conductor of sound, by condensation, and thus enabled to transmit sounds not otherwise heard. Bronchial sounds are heard in other diseases, none of which however could be mistaken for Pleurisy, except pneumonia, and in making out a diagnosis, the physician should bear in mind, that ~~these~~ they are more constant in the last mentioned disease. For in Pleurisy the bronchial tubes themselves sometimes become so compressed by the liquid, as not to admit air at all, and besides the intervening effusion exercises its influence, by adding to the number of media, which

impairs, or destroys the transmission of sound. Lastly the density of the lung being greater in pneumonia, than in pleurisy we hear consequently the bronchial sounds more clearly in the former than in the latter disease. Another important distinction is that these sounds in pleurisy are principally heard at the root of the lungs, and frequently not at all over those parts of the chest which yield a dull sound on percussion, or if heard, they are scarcely perceptable. Whereas in pneumonia the bronchial sounds are louder over those regions where dulness exists. In pleuritic effusion Bronchophony seldom remains pure – it undergoes a peculiar modification, distinguished by its "tremulous, nasal, and cracked character, suggestive of the bleating of a goat, and from that circumstance called Aegophony." It is always indicative of a moderate effusion of liquid and does not exist when the liquid is small in quantity, or exists in excess. It is most distinctly heard about the lower angle of the scapula, and as it can only be caused by the existence of fluid in the pleural cavity, we may consider it a pathognomonic sign of pleurisy. It is attributed by Dr Williams and

other skilful stethoscopists to the transmission of the bronchial voice through a stratum of liquid and throwing it into vibration. Ægophony seldom exists long, for the accumulation of liquid goes on so that the bronchial tubes themselves become compressed, or the liquid disappears by absorption. When therefore, it has existed and disappeared, its reappearance is regarded as a favorable sign - as evidence of absorption.

Among the various means of detecting the presence of pleuritic effusion, that suggested by M. Reynaud, deserves to be mentioned. It consists in applying the hand to the chest and getting the patient to speak. If the lungs are in a healthy state, the voice will communicate to the walls of the chest a vibratory motion, which can be distinctly felt, but if there be much effusion this vocal thrill will be greatly diminished or completely interrupted.

Another important physical sign is what is usually termed friction sound. In health as is well known, the opposed surfaces of the pleura glide over

each other in a quiet noiseless manner, but when their surfaces become roughened by the deposition of plastic lymph, this rubbing sound is produced. It varies a great deal in intensity, sometimes scarcely audible, at other times very marked and even so powerful as to be accompanied by vibrations of the chest, which are distinctly felt by the hand. This sound is most clearly perceived at the sides of the thorax. In the commencement of Pleurisy, it is faint and feeble, owing to the soft condition of the lymph, which is deposited, but when the effused liquid augments so as to separate the pleural surfaces, attrition is prevented and consequently the friction sound ceases. But when absorption takes place and adhesions do not confine the lung, we again hear this sound, it being much louder and rougher in its character.

Acute Pleurisy may affect both sides at once, constituting double Pleurisy - a form of disease exceedingly rare and very fatal. When it does occur and is accompanied by effusion into both of the thoracic cavities, the indications afforded by percussion are less certain, for both sides

yielding a dull sound, our means of comperison is lost. We will be assisted however in recognizing its existence, by keeping in mind what has been said in relation to the diagnosis between Pleurisy and Pneumonia, for this latter disease is the only one for which it could be mistaken.

Partial Pleurisy is another form of the disease which is daily met with. It is generally unattended by fever and is recognized principally by the pain that it occasions, which is acute and felt in some point of the chest. The inflamed membrane deposits an exudation of plastic lymph, which becomes organized and transformed into adhesive bands, which are so frequently seen in post mortem-examinations. Neuralgia and Rheumatism are terms frequently employed to account for acute pains of the side, but from the frequency with which we meet with false membranes in the chest, we are led to believe that these painful sensations are much oftener owing to Partial Pleurisy, than to those affections. Tubercular deposit is the most frequent cause of this circumscribed inflammation, and hence we can readily account for the severe pains of the chest which

are experienced by consumptive patients. In examining those who die of Phthisis, we find adhesive membranes, the result of inflammation of the Pleura, occupying those regions where pain had been felt, and generally corresponding in quantity to the tubercular deposit. The pleura may indeed be perforated by softening tubercles, giving rise to a very severe and intense Pleurisy, accompanied by Pneumothorax.

But among the complications of acute Pleurisy, none is more frequent as we have already remarked than that of Pneumonia, which may be the cause of the Pleuritic inflammation, or the consequence of it, or the same cause may light up both diseases simultaneously. In Pneumonia, when the inflammation has extended to the surface of the lung, its investing membrane, by reason of its contiguity, frequently becomes involved. So also in Pleurisy the close proximity of the lung, readily involves its parenchyma in inflammation. The pressure of the liquid may also have the effect of exciting inflammation in the lung. When Pleurisy is confined to one side, which is almost always the case, the opposite lung may be attacked

with Bronchitis, Pneumonia, Emphysema, or Congestion, thereby increasing the danger of the patient. All these different complications may be recognized by the ordinary Stethoscopic phenomena.

The causes of Acute Pleurisy are divided into predisposing and exciting. The former comprise principally constitutional debility, and convalescence from fevers. In the latter division may be embraced, all wounds that penetrate the pleura, tubercles, and most of all, Cold applied to the surface of the body. Sometimes Pleurisy spreads as an Epidemic, assuming a less sthenic character than sporadic cases, and accompanied by a disordered condition of the digestive functions, and the symptoms of bilious fever. To this modification, the term Bilious Pleurisy is applied.

Pleurisy is always to be regarded as a serious disease, although under judicious treatment it frequently terminates in resolution and complete restoration of health. Next to resolution, the formation of adhesive bands, is the most desirable termination. These bands may exist between the opposed pleura, producing little or no

embarrassment to the respiratory motions; or what is of a more serious nature, they may bind down the lung whilst it is in a compressed state from the effused liquid. Now what will be the consequence of this state of things? Absorption takes place, but the lung is robbed of its liberty - it cannot expand, and the pressure of the atmosphere, not meeting with its customary antagonizing force from within the chest, causes the side to contract & shrink inwards. The deformity is sometimes so great, that the patient inclines towards the effected side and in some cases, walks a little lame. The natural resonance on this side is lost and the respiratory murmur diminished. In those who recover with this contraction of the chest, the breathing is somewhat interfered with, and they are more liable to dangers from catarrhs & other affections of the respiratory organs, and at the same time, more exempt, in future, from the dangers of pleuritic attacks. Lastly Acute Pleurisy may terminate in death by suffocation on account of the quantity of the liquid effusion, or it may run down into the chronic form, giving rise to the deposit of tubercular matter, which wears down the strength of the patient by

hectic, and wastes his body by atrophy, until life, coming to dwell in such a tenure, ceases to hold it from its kindred earth."

Treatment.

The great instrument to be employed in the treatment of Acute Pleurisy is venesection, by reason of its well known power to subdue fever and inflammation. But to accomplish all the good it is capable of, it should be resorted to in the first stage of the attack. We should should bleed from a large orifice, so as to make the quickest impression upon the system, and we should repeat the operation, according as it is necessary. We cannot always depend upon the pulse, as a guide in bleeding in this disease, for experience has shown that it is sometimes liable to deceive. The quantity of blood to be taken should rather be regulated by the remission of pain in the side and relief of respiration, or if these do not occur, we should bleed until symptoms of fainting appear.

Cupping and leeching are generally employed as an auxilliary to general bloodletting, and are useful to relieve the local congestion and pain, and are sometimes

used as a substitute for venesection. For we must recollect, that the use of the lancet is not equally beneficial in every modification of Pleurisy. When the disease assumes an asthenic form, venesection if it is resorted to at all, should be employed with the utmost caution. In this form of the disease local abstraction of blood would be preferable, at least in most cases.

Mercury is an invaluable remedy in Pleurisy on account of its peculiar property of arresting the effusion of lymph, and causing the absorption of that which is already effused. It should be given in combination with opium, to prevent it from passing off by the bowels, and in repeated doses so as to bring the system as speedily as possible under its influence.

Saline purgatives and diaphoretics may also be used in this first stage of Pleurisy with a view of reducing the fever. But when the febrile excitement has subsided, the acute pain and dyspnoea relieved and there exists an accumulation of fluid, our object is then to procure its absorption. To effect this, we keep up the influence of Mercury on the system, and

restrict the patient to rigid abstinence, as was done when inflammation and fever were high. We also give diuretics, and hydragogue cathartics; in short we give those medicines, that act upon the kidneys and bowels, by their derivative effects, and thus affect the effusion. In relation to the employment of hydragogue cathartics for the purpose of promoting absorption, we must be guided by the patient's strength and always use them with the utmost caution.

As auxiliaries to the internal means used to bring about absorption, we also employ the various modifications of counter-irritation, such as stimulating liniments, & blisters. But, sometimes, notwithstanding all our efforts, the effused liquid continues undiminished, and symptoms of suffocation appear. What is to be done to relieve the threatening danger? Our only alternative is this case is the operation of Paracentesis thoracis. But it must not be resorted to until all other means have failed, and the life of the patient is in imminent danger from suffocation. This operation rarely avails more, than to afford temporary

relief, in Acute Pleurisy, for the fluid soon collects again. In the Chronic form, however it is attended with more success.

An
Inaugural Dissertation
on
Hydrocephalus Acutus
Submitted to the examination
of the
Provost Regents and Faculty of Physic
of the
University of Maryland
For the
Degree of Doctor of Medicine
by
John A. T. Billingsley
of Maryland
A.D.
1849

Transcribed

Acute Hydrocephalus

Medical writers previous to the time of Rush seem to have entertained erroneous ideas with regard to the pathology of the disease under present consideration as may be infered from the inappropriate appellations by which they have designated it, Rush & some of his cotemporays supposing that the effusion which occurs during the progress of this malady constituted its true pathological condition instead of regarding this phenomenon as the result of a primary morbid action previously established in the brain or its membranes, have bestowed the names of Hydrocephalus acutus apoplexia, Hydrocephalica & names which are retained by many at the present day. Dr Rush who ~~was~~ entertained more correct notions of the essential nature of the disease regarded it as a milder form of phrenitis, & accordingly called it Phrenicular. The Pathological researches of Abercrombie & others have established beyond any doubt that the effusions which occurs during the progress of this disease is not to be considered as the result of an hydropic diathesis of the system as was formerly ~~supp~~ supposed but that ~~the~~ it is merely the consequence of inflamation

generally seated in the brain or its membranes, but although serous effusion is most frequently occasioned by an inflamatory action of the brain there are unequivocal evidences of its existence independent of that process; it may be produced by causes which have a tendency to impede the cerebral blood vessel in their circulation; This disease most generally occurs in early life in those Children who are of a scrofulous diathesis, the most usual period of its appearance is about the time of dentition owing at that time to a greater degree of irritability of the whole system & to a greater determination of blood to the brain. It is a pathological fact that the disposition to effusion is always greatest where there is the greatest determination of blood. It seems that the true cause is owing to Tubercles seated in the membranes of the brain the fact of the disease occuring in Children of a scrofulous diathesis goes in a great measure to establish the nature of the malady ..

Having premised these general pathological facts the result of careful investigation of those who have directed their attention to the diseases of the brain chiefly with the view to show that the disease is never dependent upon either a dropsical affection of the brain or its membrans

or upon a dropsical diathesis of the system but that it is strictly speaking an inflamatory disorder, terminating in effusion, I shall now proceed to examine the symptoms by which the disease is charaterize, As the phenomena which accompany inflamatory action when seated in the structures of the cranium are in many respects similar & give rise to similar results it must consequently be a matter of much difficulty to ascertain with certainty the primary seat of the inflamation. nor would such information be of much practical value to the Physician as the same mode of treatment applies to all diseases of an inflamatory character affecting the brain to be modified only according to the degree of inflamatory action present, I shall now proceed to point out the symptoms which characterize this disease first it may be proper to speak of the precursory symptoms which seems to consist chiefly in a morbid state of the digestive organs the child loses its appetite or it is capricious the tongue is foul the breath has a disagreable smell there is often enlargement of the abdomen & often pain is occasioned by pressure on the abdomen the bowels are constipated the stools are changed in their appearance they are generaly pale

there is never much bile to be found in the
Stools the patient loses his former healthy aspe-
ct even already there are indications of a deran
ged condition of the cerebral functions the pa
tient is heavy languid & dejected, also fretful
& very irritable the patient does not sleep as well
as usual, often awakes suddenly & cryes out.
~~Suddenly~~ there are three ways in which this
malady may make its appearace in the
first mode it may come on gradually of
ten such symptoms as have already been sp
oken of as premonitary, after a few days
a different set of symptoms present themselves
there is intense headache also high fever the
pain in the head is of a sharp shooting kind
recurring at intervals the child is often awak
ed by its severity and cryes suddenly often a
little with the Patient becomes comatose and
the shreking cryes give place to an ha
bitual moaning often in the begining of the
malady there are pains & stiffness at the
back of the neck sometimes there are pai
ns in the limbs and in many cases ~~in~~ exce
ding tenderness of the scalp vomiting is a
pretty constant symptom in this stage of the
malady the Patient sighs often and looks
sad there is on the part of the patient

great intolerance of light and sound the pulse is frequent these symptoms may last for eight or ten days the Patient becomeing more and more debititated and more and more fretful and looking more & ill, in the second form of attack there are no precursory symptoms or if any they are but slightly marked besides the severe headache already spoken of there is also considerable increase of the fever and often convulsions or coma the face is flushed the eyes are brilliant there is increased tenderness and pain of the abdomen the stomach & bowels are in a very irritable condition vomiting is often brought on by any attempt to change the posture of the patient again the disease may make its appearance in a very insidious manner these symptoms supervene upon the subsidence of some other disorder often after some inflamaton or febrile disorder or some of the eruptive diseases, this disease presents many and variable symptoms the symptoms often appear in a reversed order. I shall now proceed to examine into the predisposing causes of Hydrocephalus. may have thought

that the state of the digestive organs exers
a great influence in predisposing to this
affection & no doubt this opinion
is correct the great predisposing cause
after all is the scrofulous diathesis. the
age of the Patient has its influence too
for as we have already said that the dis
ease is one of early life. the time that
it is mostly seen is from the birth of
the child up to the fifth month but
it is by no means confined to this period
for it may come on at any time up
to the twelfth or fourteenth year
after this time it is rare, whatever
tends to call into play the scrofulous dia
thesis may be considered as a predispo
sing cause, among the exciting causes
may be placed all physical injurys whic
h jar & stun the brain blows on the
head falls and so on. having taken a
cursory view of the Causes & Symptoms of
Hydrocephalus I will now proceed to say
something of the treatment of this disease
first let us consider bloodletting there
has not always existed great uniformity
of opinion about the extent to which
the use of this agent should be carried some

Practitioners have recommended large bleeding in this affection others have thought that the bleedings should be small and often repeated I think that blood should be taken largely at first so as to make a decided impression on the disease by this kind of bleedings we save our patients strength & produce a better effect on the malady it may be proper if the symptoms demand it to abstract blood localy, leeches applied to the head is the best way of taking blood locally. after bleeding we should commence the use of purgatives the best that we can have recourse to is Calomel combined with Jalap or some others strong purgative if these agents fail to act as prompt as we desire we may aid their action by saline Cathartics — It is sometimes rather a difficult matter to get the stomach to retain any thing the vomiting is excessive in some cases this is to be treated by the use of some sedative. Enema will often prove very useful in our treatment of this disease Mercury should be used untie the proper effect on the constitution is produced the evidence of this will be the colour of the discharges which will be of a

greenish colour the opinion used to be en
tertained by many Authors that this character
of stools is pathognomonic of diseases of the brain
but Abercrombie remarks that there is no
condition of the bowels which is peu
liar or essential to this class of diseases with
regard to this appearance of the stools
which by some Authors have been regarded as
a diagnostic sign of inflamation of the br
in the same Author observes that I must
consider it in principle erroneous & in pra
ctice dangerous to suppose that any char
acter of stooles is characteristic of this disease
we come now to the consideration of another
valuable agent in the treatment of this
disease cold it is often of great value in
the treatment of this disease it should be applied
to the head ice in a bladder in large qu
antitys. another class of agents that we
will find of great value in the treatment
of this affection are blisters they should be appe-
lied to the head they should be avoided in
the first stage of the disease for if used
in this time they will do great injury
the second stage of the disorder is the time
that they should be had recourse to I
will say something before concluding these

remarks about the prophylactic treat
ment of this disorders in those children
who are of a scrofulous diathesis or in th
ose whose families the disease has occurred
the strictest attention should be paid to the
slightest deviation from a healthy cond
itich of the functions of the digestive or
gans every thing as far as possible shou
la be kept in proper order about the
system the patients diet should be of
a mild unstimulating kind at the same
time highly nutritious the child should
take a good deal of exercise in the open
air such children should not be put
to any business that will confine them
the diagnosis of this malady is not easy
by any means in every case for the
symptoms are variable. they often
appear in a reversed order. this disease may
deviate so far from its usual course as to
be mistaken for anaemia also for inflam
mation of the substance of the brain of
cours in these cases we will be able
only by a close & carefull investigation
of the symptoms to make out an own dia
gnosis Prognosis this is grave but still
it will depend a good deal upon

the severity of the symptoms present
and also upon the constitution of our
patient.

An
Inaugural Dissertation
on
Four cases of Disease,
submitted
to the examination
of the
Provost, Regents and Faculty of Physic
of the
University of Maryland,
for the degree
of
Doctor of Medicine,
by
Joseph E. Mc. Chamberlaine,
of Talbot County, Maryland.

February 1849.

I respectfully submit to your consideration, Gentlemen of the Faculty, a journal of four medical cases which have fallen under my observation. These I have reported in lieu of the customary Thesis, agreeably to the advice of a portion of your number. In presenting my reports, I have been compelled to note cases which had been previously treated and which are consequently less interesting than diseases seen from their incipiency; of this difficulty, so common in Hospitals, you are however fully aware.

Enteric Fever.

John, a negro boy twelve or fifteen years old, was brought to the Baltimore Infirmary on the twelfth day of last October. He was extremely debilitated and at times delirious. No information could be obtained of the first symptoms of his disease, nor of the treatment to which he had been subjected. He had been unwell eight or ten days and had been confined to his bed for a week.

On the thirteenth, he was completely prostrated, his pulse frequent, threadlike and dicrotic, numbering a hundred and forty two pulsations in the minute. His skin was dry and hot, his tongue, which he protruded with difficulty, was observed to tremble, it was rough and coated with a brown fur; dark sordes had collected upon his teeth and gums. There was considerable stupor, he would answer reluctantly when aroused and in a few moments relapse into a partially comatose condition: when pressure was made over his abdomen, signs of tenderness were exhibited, more especially so when the

pressure was made in the right iliac region; and a slight tympanitic distension in his bowels was discovered upon percussion. He had also a dry cough together with sonorous rales. His bowels were open once or twice during the day. He had no appetite, but a constant desire for water. The following treatment was directed: Alkaline Solution occasionally, and, three times a day, ten drops of the Oil of Turpentine in an emulsion of Gum Acacia.

On the fourteenth he complained of a heavy pain over his eyes; there was increased stupor and obtundity of intellect, together with subsultus tendinum and a constant tendency to slip down in the bed. The fever had not abated nor was there any change in the character of his pulse. In addition to the remedies prescribed the day before, ice was applied to his head and Emplastrum Cantharidis, three inches by four, to the back of his neck.

On the fifteenth his pulse had increased in frequency, numbering one hundred and forty seven

pulsations in the minute. He was exceedingly weak and his bowels were slightly constipated. An enema of Flaxseed tea was ordered, and in addition to former treatment, three grains of Quinine and five grains of Carbonate of Ammonia to be given three times a day.

On the sixteenth there was considerable swelling of the Parotid gland. He was very irritable but his mind was clear. The enema which had been administered on the previous day had not ~~repeated~~ repeated. It was repeated.

On the seventeenth there was considerable stupor; his pulse was a shade stronger. He had been kept on the strictest diet from the time he entered the house; to day, he was allowed to take some wine and a small quantity of beef tea.

On the eighteenth he was much better; his mind was comparatively clear, his pulse had fallen to one hundred and sixteen and was much firmer. The Parotitis seemed to act beneficially as a revulsive. Same treatment as before.

On the nineteenth he continued to improve.

The Turpentine was laid aside; Camphor Julep was ordered, of which he was to take a table spoonful, ter in die and the Quinine and Carbonate of Ammonia were still continued.

On the twentieth, his Parotid gland was much swollen; a Mush poultice, sprinkled with Muriate of Ammonia was applied to it.

On the twenty first and twenty second, he continued to improve, though complaining very much of his jaw.

On the twenty third the gland was laid open. It suppurated freely, was syringed out with soap and water and then dressed with a poultice of Linseed Meal.

On the twenty fourth his tongue had thrown off its brown coating; his teeth had become clean and his mind was clear.

On the twenty fifth he complained very much of his jaw, which appeared to be the only cause of his suffering. The intensity of his fever had abated, his pulse had fallen to one hundred and twelve, and he was much stronger.

On the twenty sixth and twenty seventh, he was still convalescing. No change was made in the treatment.

On the twenty eighth, his tongue and teeth were clean, pulse one hundred and ten, skin of a pleasant temperature and mind clear. He was feeble and emaciated, but experienced no pain or uneasiness. The usual treatment for Parotitis was persevered in, and with this exception all the former remedies were discontinued. The Infusion of Cascarilla was directed for him.

The boy remained in the house for two or three weeks longer and left perfectly restored.

Chronic Diarrhoea.

Armstrong, a volunteer who served in our Army in Mexico, was admitted as a patient in the Infirmary on the twenty sixth day of last October. He was very much debilitated and emaciated from the effects of a Chronic Diarrhoea, which he had contracted whilst stationed at Vera Cruz. This disease humbled, even to the dust, hundreds who were yet exulting over their bloody victories. Numerous cases were to be found in every section of our country, and most of them obstinately resisted all treatment. Armstrong's disease had continued during three or four months, without any very marked change. It would occasionally be checked for a few days, but would soon return again with increased virulence. His evacuations, at this time, were frequent, copious and liquid, covered with whitish or beerlike foam. He was not troubled with pain or tenderness; but there was slight uneasiness previous to his evacuations which

were generally followed by relief. His appetite was good and he seemed to be constantly thirsty. His diet was to be entirely farinaceous, and the following prescription was directed for him;

℞. Tannin gr j.
Opii Pulv. gr ¼.
M. Ft. pilula. S. i ter in die.

On the twenty seventh there was no change in the appearance of his stools; they were still thin but not quite so frequent as on the previous day. He complained of general debility. In addition to the pills mentioned above, the Infusion of Cascarilla was ordered.

On the twenty eighth his condition was the same as on the day before.

On the twenty ninth he was much better, and had but four evacuations during the twenty four hours which were more consistent and not covered with the foam.

On the thirtieth he had but one passage during the day; he felt much better and

was able to take some exercise.

On the thirty first he was more unwell on account of having imprudently indulged in fruit; he was called to stool several times during this day.

On the first day of November he was much worse. He had seven or eight evacuations which were whitish and presented the same appearance as ~~xx~~ at the date of his entrance. Three grains of Tannin were directed to be given during the day in addition to the remedies which had been hitherto employed.

On the second there was no change in the number or character of his discharges. The Tannin and Opium were discontinued and the following treatment substituted;

℞. Hydrarg. Pil. grs. ij.
Kino Pulv.
Doveri Pulv. āā grs. v.
M. Ft. pulvis. S. ter in die.

On the third he was better; his stools were not so frequent. The same treatment continued.

On the fourth his improvement was very marked. His spirits were better, and he had, during the day, only one evacuation which was darker and more solid.

On the fifth he was in about the same condition as on the day before. He had but one discharge from his bowels, which was yellowish.

On the sixth he was still improving. His spirits were good and there was no material change in the number or appearance of his passages.

On the seventh he had one evacuation which was foecal. He was very much better and complained only of debility.

In the afternoon he left the house.

Gastro-Enteritis.

On the morning of the twenty eighth of last September, whilst passing around in the Citizens' Ward of the Infirmary, I observed a German, lying on one of the beds, with his knees drawn up and apparently suffering great agony.

He complained of pain in the epigastrium, which was considerably increased by pressure; his tongue was red at the tip and around the edges, and covered, in the middle, with a whitish fur; his pulse was full and firm and he had considerable thirst. He was attacked on the previous evening, and thinking that the pain was caused by some indigestible article of food which he had eaten during the day, he did not consult a physician, but took, at the instance of a friend, twenty drops of Laudanum and a few moments afterwards some gin. The pain however continued without abatement.

The following plan of treatment was pursued by direction of the attending physician. Blood

to the amount of twelve ounces was taken from his arm and a sinapised mush poultice was applied over his abdomen. He then took ten drops of the Tincture of Opium in two drachms of Castor Oil. Rice water was ordered for his diet and after the operation of the oil, he was to commence with the following prescription;

℞. Sodæ Bicarb. ʒij.
Morphiæ Sulph. gr. j.
Aquæ ℥vi.

M.— S. Cock. Mag. every two hours.

On the twenty ninth I saw him early in the morning. He had passed a restless night and was quite drowsy; his tongue was dry, there was tenderness over the right Iliac region together with pain in the epigastrium, though not so violent as before. He had several watery evacuations during the day. The Solution of Soda was stopped and this prescription directed instead thereof;

℞. Hydrarg. Proto Chlor. grs. V.
Opii Pulv. gr. ss.

M.— Ft. pulvis. S. ter in die.

At nine o'clock in the evening his skin was moist and the pain in his epigastrium diminished.

On the thirtieth he was very much better; he had no fever but some nausea. In the afternoon however he was more unwell, suffering from nausea and vomiting. A sinapism was placed over his abdomen and afforded him relief. At night he was better; his skin was moist, he had no fever and for the first time since he was taken sick, he desired to have some aliment.

On the first day of October the pain had returned and he complained of alternate flashes of heat and cold. His gums were tender, and the Mercury was of course discontinued. Emplastrum Cantharidis, ten inches by ten, was applied over his abdomen, in the place of which, a mush poultice was substituted, after the skin had become red.

On the second he had improved very much and was ordered to have the Solution of Soda and Morphia again, in the same quantities as were directed by the prescription

given on the twenty eighth day of ~~Oct~~ September.

On the third he was convalescing and had neither fever nor pain. The same treatment was continued.

On the fourth he appeared to be in about the same condition as on the day before.

On the fifth he complained of numbness in his lower extremities and was ordered to rub them with dry mustard.

On the sixth he was well, though very much debilitated.

Acute Articular Rheumatism.

Jones, a sailor who had served as steward on a vessel sailing from Baltimore, was attacked whilst at Antigua with an acute pain in his shoulders, which however did not prevent him from performing his usual duties on the ship. After leaving Antigua, he was exposed to very inclement weather, and his symptoms consequently were greatly aggravated. In addition to the pain in his shoulders, he was attacked with pain in both hips, which on the third day became so severe that he was compelled to remain in his birth. He continued in this condition, for about twenty days, without any treatment, until the vessel arrived in port.

On the twenty fourth of last October he entered the Infirmary. He had acute pains in his shoulders and hips, which were very much augmented by motion; his pulse was full and strong, his tongue moist and covered with a whitish fur, there was anorexia and his thirst

was very annoying. Sixteen ounces of blood were taken from his arm; at night ten grains of the Proto Chloride of Mercury were given and Black Draught early on the following morning. The blood which was drawn was buffed and presented a firm coagulum.

On the twenty fifth he did not complain so much of pain as on the day of his entrance; his pulse was firm and a little excited and his skin was neither so dry nor so hot. The Calomel was ordered to be repeated and to be followed, as before, by the Black Draught.

On the twenty sixth he had not much fever and his pulse was softer. He could move his shoulders without experiencing much uneasiness, but he still suffered somewhat from pain in his hips. No medicine was ordered.

On the twenty seventh there was no fever, but he complained of pain in the articulation of the lower jaw and in the Masseter muscle. Ten grains of the Proto Chloride of Mercury were given to him at night, the Black Draught on

the following morning and his jaws were rubbed with the Linimentum Terebinthinæ.

On the twenty eighth he was much better and able to walk about; his gums were spongy and emitted no odour, and from these circumstances it was thought that he was somewhat scorbutic.

On the twenty ninth he was more unwell and had some pain in his hips; he had exposed himself too much on the previous day.

On the thirtieth there was no considerable change in his symptoms. His thighs were well rubbed with the Volatile Liniment.

On the thirty first he was much better; the following prescription was ordered for him:

℞. Potassæ Nitrat. grs. V.
Doveri Pulv. grs. iij
M. Ft. pulvis. S. ter in die.

He remained in the Infirmary for two or three weeks longer, gradually convalescing.

In presenting these cases, gentlemen, for your examination, I feel no slight degree of embarrassment. I fear that numerous imperfections will be obvious to minds so replete with medical and general literature: though in this instance, I hope you will regard favourably the intention, and not denounce the effort though devoid of merit. I did not determine to report cases until late in the season and I was induced to adopt this plan by being informed that the Faculty would prefer that this, the recommendation of the National Medical Convention, should be carried out. Some of the cases which I have submitted do not present as much interest as I would wish, or in other words, were not sufficiently aggravated to be medically termed "beautiful cases."

If an objection be made to their brevity, permit me to lift the Olympus from my shoulders, and to prefer the ~~char~~ grievous charge of too great skill against two very distinguished members of your body, the attending physicians at the Baltimore Infirmary.

An
Inaugural Dissertation
On
Phthisis Pulmonalis.
Submitted to the examination of the
Provost, Regents and Faculty of Physic
Of the
University of Maryland.
For the Degree of Doctor of Medicine
By
William Selby Bett
Of
Maryland.

Feb. 1849.

Phthisis Pulmonalis

"Ut alimenta sanis corporibus agricultura, sic sanitatem agris medicina promittit."

The arterial blood circulating through the system parts with some of its constituent principles for the support and growth of the body; and this blood having entered the veins, meets with matter no longer needed in its passage back to the heart, which is absorbed, and through this medium, is carried to the different emunctories, to be expelled from the system.

For the expulsion of the superfluous carbon we have the lungs, which are admirably adapted to this purpose. The air which consists of oxygen and nitrogen coming in contact with the carbonized or venous blood parts with its oxygen, and this uniting with the carbon in the blood forms carbonic acid gas which is exhaled, and thus is effected the decarbonization or arterialization of the blood, rendered impure by having passed through the system, and therefore unfit to circulate in the arteries for the support of life. Now this great organ having for its object the renovation of the blood is situated on both sides of the thorax, and consists of bronchial tubes leading to air cells, pulmonary arteries and veins, lymphatics and nerves, all being united together by cellular tissue. The pulmonary arteries

convey the dark, and venous blood, and terminate in capillary vessels forming a minute net-work upon the cells into which air is conducted through the trachea and bronchial tubes, and is returned to the left side of the heart by the pulmonary veins after having become arterialized. Now it is evident that there must be an adequate number of cells to arterialize a quantity sufficient for the support and demands of the system always present for a healthy condition of the body. And also that a due proportion must exist between the quantity of air admitted into the cells, and the quantity of venous blood carried by the pulmonary arteries to become arterialized, and when this relative proportion becomes any way altered or disturbed so much will the function for which it was designed to perform, be interfered with - Pulmonary phthisis then deranging so important an organ to the animal economy as this - one of the props to the tripod of human existance as it has been called - occuring so frequently, and so seldom admitting of cure when once established, forms one of the most crowded avenues to the grave. And when we reflect that the young and most beautiful of the fairer sex and the most promising, and those of the brightest intellects of the sterner are the frequent subjects of this disease we should then see, that in the extensive catalogue of diseases to which

the human frame is subject, none could be found of more frightful aspect, and more fatal in its results, and hence of more interest to the medical man than the one I have chosen for the subject of this dissertation.

For a long time the minds of medical men were harrassed and perplexed and various theories were invented to explain the cause of pulmonary phthisis. Even so late as the celebrated Rush the real nature of this disease appears to be unknown. He says in his "inquiries into the cause and cure of pulmonary consumption" that debility is the cause and tubercles the effect of this disease and that they (tubercles) were nothing more than mucus effused in the substance of the lungs. But by the aid of such minds as Laennec, Andral and other bright luminaries which adorn our science important truths concerning this subject have been drawn from the arcana of nature, sufficient to satisfy the profession conflicting before this period in opposite theories that the truth has been discovered, and that pulmonalis phthisis depends upon a peculiar diathesis in which inorganic substances called "tubercles" are deposited in the lungs, and that these acting as a source of irritation sets up inflammation, which ends in ulceration

and distruction of this organ

In regard to these bodies Laennec says "when first observable in the substance of the lungs they have the appearance of small semi-transparent grains, greyish or colorless, and varying from the size of a millet seed to a hemp seed. In this their first state they may be called milliary tubercles. These generally increase in size and become yellowish and opaque, at first in their centre and successively throughout their whole substance. In their progressive and mutual increase several unite together so as to form large masses of the same kind, which like the individual ones are of a pale, yellowish opaque color, and of the consistance of very fine cheese, in this stage they may be named crude or immature tubercles. At length after an uncertain period they become softened and finally liquefied." Now when these are deposited in the lungs they continue to increase in size until from the pressure exerted, as would be the case with any other foreign body, the surrounding textures take on inflammation of the scrophulous kind, a thin pus is poured in upon the tubercle, which softens it, and breaks it down, and afterwards it is generally brought up by coughing.

Tubercles are found usually in the parenchyma of the lungs, but sometimes on the free surfaces of mucous membranes, as in

the inner linings of the air cells and bronchial tubes taking their form from the nature of the tissue in which they are deposited, so they are not always round as they have been represented to be. They also are not alike subject to infest any part of the lungs but seem to have a partiality for the posterior surface of the upper lobe of the left lung. This is not found always to be the case; but when it happens otherwise it appears only to be an exception to the above general rule. This is important to be borne in mind as in pneumonia the part affected is most generally the lower lobes of the lung, and hence it may assist us in our diagnosis.

I have been speaking as if this was strictly a local disease, exclusively pulmonary. Tubercles are indeed found in greater abundance and the effects which they produce when deposited in the lungs are of more serious character than in many other parts: but we seldom if ever find them in the lungs when other parts are not at the same time affected by them. The alimentary canal, fallopian tubes, and various other parts may be infested by this morbid deposit

I have already explained how tubercles when once deposited in the lungs

are got rid of by coughing and expectoration. What is the condition of the lungs when this has taken place? There is left in them a hollow which is called in technical language a "vomica". These vomica vary much in size; we may find them as small as a pea, or as Watson tells us, large enough to contain a pint or more of fluid. The larger vomica are seldom found in the lower lobes their favourite habitat is the upper lobes, gradually lessening in size from above downwards. It has been said that the upper lobes are more obnoxious to tubercular depositions than the lower, hence the cause of larger vomicæ. We find transverse bands which form partitions in these large vomicæ; blood vessels were at one time supposed to ramify through these bands; but this is not the case. How comes it then since portions of these vessels are brought up with the rest of the detritus in the formation of these cavities that we have not often in this disease fatal hemorrhage? This does indeed sometimes occur; but oftener the "vis medicatrix naturæ" comes in at this perilous time to the dying man's assistance, and keeps alighted in this as in all other cases the flickering taper of life to the longest possible period. The tubercles pressing against the arteries bring their inner coats in contact, the flow of blood is obstructed, and the vessels are sealed up in

the same manner as they would be were they tied by a ligature thereby preventing the hemorrhage which would otherwise take place.

The inner surfaces of these cavities after the detritus is expectorated is left at first soft and ragged; but after it has remained in this condition sometime if no other tubercles are breaking down in its neighbourhood it becomes smoother, and a membrane like substance which is of the mucous kind, forms upon it, from which sometimes exudes a puriform fluid. Around these excavations the pulmonary tissue becomes condensed and solidified, sometimes the result of inflammation, and sometimes of crude tubercles blended in its substance.

Having thus far traced the tubercles from their origin to their expulsion from the lungs, and given the condition of this organ after they are expelled I shall now mention some of the complications which frequently occur in phthisis pulmonalis, as a knowledge of them may assist us when we endeavour to account for certain of the symptoms to be spoken of hereafter.

Complications:—

When tubercles are deposited near the pleura the inflammation is often

extended to that membrane and the dry or adhesive pleurisy is formed. This however is a fortunate occurrence. Its preservative effect is obvious. Were it not for this admirable design of nature the pleura might be perforated, and the contents of the vomica poured out in the serous sac, or air would be transmitted into the same forming that dangerous and frequently fatal disease "pneumothorax". This is one of the many instances which are calculated to inspire us with reverence, and point us to the wonderful order and harmony which pervade the works of nature. In no study have we more striking examples of the wisdom and beauty in the laws of Divine Providence than in the study of medicine! Were it not for this how often would the silken cord of life be severed in defiance of the most consummate skill and judgment of mortals. This thought is alone enough to impress us with a conviction that we are utterly dependent upon the goodness of our Creator, and check that base ingratitude which we every day evince towards Him in our conduct through life.

It has been found that the larynx and trachea are often the seat of scrofulous ulceration, and this seems peculiar to this disease; on this account it has received the appellation of laryngeal phthisis. Its cause is supposed to be the irritation which the matter produces in these parts during its expectoration,

The organs of voice being thus disordered, its function necessarily becomes disturbed until it reaches that degree of hoarseness, or total incapacity of utterance which usually mark the latter stages of Phthisis.

We seldom find in the deceased subject of this disease the mucous membranes and glands of the intestines free from tubercular depositions. But as the ulceration comes on slowly the viscera of the abdomen are rarely perforated so as to allow the contents of the intestines to be poured out in its cavity as nature in this case "is allowed time" to form the necessary adhesions to prevent the threatened perforations from taking place. This is so frequently the case in this disease that Watson says "once only in my life have I known scrofulous ulceration in phthisis to penetrate the serous coat and allow the contents of the intestines to escape in the sac of the peritoneum."

We can in most cases tell by a person's general appearance whether he has the scrofulous diathesis. Such persons are of delicate make, fair complexions, and florid countenance; a soft skin, long necks; narrow contracted chests; prominent shoulders with hollow temples; thick upper lips; a weak voice; great sensibility and clear white teeth.

This disease is hereditary,

Therefore we may expect to find it in those whose ancestors are phthisical. There is one singular circumstance in regard to this hereditary predisposition; it will sometimes skip over one generation and visit the next. In persons who escape this disease under these circumstances it is probable that they have the diathesis but by avoiding the exciting causes which appear sometimes necessary to call it into action they remain during life, which may be a long one, free from tubercular depositions.

The causes which dispose the lungs to become affected by this deposit appear to be all those which irritate them & debilitate the system. Such as coughs and colds which have neglected or injudiciously treated in their early stages. Some occupations in life such as require artificers to sit in one position, or constantly to lean forward and press upon the chest as cutters taylors and shoemakers. The small particles of wood, stone, metals, and other hard substances inspired have produced the disease in artists who work in those substances. It is called into action by the influence of certain diseases as pneumonia, syphilis, influenza, small pox and measels, and also by close application to study without proper exercise. Another source of great injury to the constitutions of young persons, and one which frequently proves to be an exciting cause of tubercular depositions is a habit of indolence or want of bodily exercise, which-

nature requires to expand the chest and strengthen the system, and that due order and regularity to the animal frame on which a healthy state so essentially depends.

I have now described the condition of the body when a person is affected by tubercular phthisis; what external signes have we which would point out to us the existance of such a condition? To solve this question let us consider first the=

General Symptoms:—

Most of the general symptoms which we meet with, are more or less equivocal we have not one which might be called pathognomonic of this disease: hence the wonderful accounts of the cures which we every day meet with paraded in news-paper advertisements under the pompous fiction of "cures of pulmonary consumption", when in truth if a cure has been effected at all, which is doubtful, it was not of consumption, but some other affection bearing the general signes of this disease.

We generally see phthisis ushered in by a short dry cough without much expectoration for sometime except a pothy mucus which seems to proceed from the throat occuring in the morning sometimes to such an extent as to excite vomiting. but as the disease advances

the cough and mucous expectoration becomes troublesome at night, the patient experiences some uneasiness about his chest on lying down more frequently on the left side, but sometimes on both; or it may be just under the sternum. The breathing becomes oppressed on the least exertion. His spirits are very irregular, sometimes we find him appearing very lively, sometimes much depressed and morose without his being able to tell why it is so. The body becomes gradually emaciated. These symptoms may be observed many months before the patient thinks of complaining, or will acknowledge that he is so ill as to require attention; when indeed this is a most critical period, and perhaps the only one when by proper care and judicious management he may be rescued from his impending fate. But soon these symptoms increase in violence the patient becomes more easily affected than usual by slight colds, the cough becomes more troublesome and severe, and the expectoration more free and copious, and of a greenish colour sometimes streaked with blood. The emaciation and weakness go on increasing, the pain becomes more severe and the patient is unable to lie on the side affected, or to take a full inspiration without exciting a fit of coughing. The pulse at the beginning from being natural or perhaps soft, small, and a little accelerated becomes full, hard, small and frequent even to one

hundred and twenty beats or upwards in a minute, a red flush now appears on one or both cheeks particularly after meals with a dryness and heat in the palms of the hands and soles of the feet - the evening exacerbations of fever become obvious and the patient is now afflicted with the whole train of symptoms, which usually accompany the confirmed hectic fever.

This fever is of the remittent kind, and has two exacerbations in twenty four hours. one about noon, a slight remission ensuing about five in the afternoon, which is succeeded by another exacerbation and about two o'clock another remission takes place. Of these two exacerbations the one in the evening is by far the most considerable. The urine is high coloured and deposits a copious brown sediment. The appetite remains. The tongue clean, and mouth usually moist, and the thirst inconsiderable. The fauces are of a bright red colour and generally sore and tender. The pulse is frequent full and tense or small and quick. The nails of the hands and feet are of a livid colour and bent over at the ends of the fingers. The breathing is offensive quick and laborious. Accompanying diarrhoea and night sweats en-

sue which induce great debility and emaciation. The cheeks appear prominent. The nose sharp. The temples depressed and the strength rapidly declines. The voice becomes hoarse and feeble. The hair falls off and the feet and legs are affected with oedematous swellings. The skin has a glossy appearance. At this time of the disease the substance of the lungs is almost consumed, and the feeble remains are loaded with tubercular matter, large quantities of which are constantly being expectorated. The laboured breathing now like the expiring taper grows more and more feeble, faintness often occurs. The heart ceases to perform its office. The voice fatters. and the melancholy long protracted scene is brought to a close.

If it be desirable to know whether the matter expectorated be pus or mucus the following experiment first practised by Mr. Chas. Darwin will afford decisive discrimination. Let the expectorated matter be dissolved in sulphuric acid, and in caustic alkaline lixivium and then add pure water to both solutions. If there is a fair precipitate in each it is a certain sign that some pus is present, but if there be no precipitate in either it is certainly mucus. A more convenient and not less satisfactory test

is furnished by liquor potassæ which changes pus to a stringy mass while mucus is liquified by the same process. It was once supposed that it was of great importance to distinguish whether the expectorated matter be pus or mucus, under the idea that this would assist in the diagnosis of this disease; but this is not so; we find pus expectorated when the bronchial membrane is inflamed: and hence it is of no use in this respect.

It has been said that it is a characteristic trait in this disease that the phthisical patient never loses the hope of getting well again even when every symptom of approaching dissolution is present; but always flatters himself that a favourable turn will soon take place which is to bring to him a speedy recovery.

In this rough sketch of the general symptoms of this disease, it will be found that, cough, dyspnœa, expectoration wasting, diarrhœa, and hectic fever are the principal; but we can by no means positively affirm that a patient labors under phthisis merely by these symptoms. This is proved in a case related by Dr. Watson of chronic bronchitis. He says "a lady became my patient having cough expectoration of puriform matter

night sweats, and diarrhoea. She had had hooping cough a short time before, but though the hooping and other symptoms proper to this disease had ceased she continued to cough and to waste gradually she became thinner and weaker, her pulse became like a thread, and beat one hundred and twenty in a minute. She took to her bed the diarrhoea was scarcely restrained by astringents and opiates and I thought she could not live a week and by being pressed by her brother told him so. She had scarcely allowed me to listen to the sounds in the chest but I had once done so fairly, and I could find no morbid sounds except at the lower part of the lungs. If I had trusted to that circumstance alone I should have said she had not tubercular consumption; but I had not then so much faith in the indications afforded by auscultation, nor in my accuracy of ear in such matters as I might have now; and I concluded she was dying of tubercular phthisis. Almost on the very day however on which I ventured to give my prognosis some slight amendment began and she did gradually recover, and is alive and quite well at this time. Notwithstanding this uncertainty however in respect to the diagnosis of this

disease fifty years ago the symptoms which I have described were all the practitioner had to form his opinion as to whether or not his patient had tubercular phthisis.

Physical signs:-

Among the many improvements in our science of late auscultation holds a conspicuous place as being one of the most important discoveries. It is by this method of diagnosing that we are enabled to tell the condition of our patients lungs with certainty, and read as it were the morbid processes going on within the body, and in this manner to watch the unfortunate patient as he advances step by step in his progress to the grave, which is a source of great gratification in many cases to the physician as he can prepare his friends and relatives for the dreadful result which is soon to take place, and to draw from him some thoughts on that Eternity in which his soul has soon to enter.

When any portion of the lungs is studded with tubercular matter in that place, as we might expect, no vesicular breathing is to be heard; but if the solidified portion be near the surface bronchial breathing and bronchophony will be audible, and on

percussion the lung will give a dull sound. But as soon as this tuberculous matter is expectorated and a cavern or vomica formed the entrance and exit of air through the pervious bronchi leading to it produces a noise somewhat similar to an exaggeration of the bronchial respiration usually called cavernous respiration. Whenever we meet with this sound we may be sure, I believe, that our patient has a vomica in his lungs. But as it has been observed "the cavity may be small. The moment a portion of tubercular matter is separated and discharged through a neighbouring bronchial tube the cavity has commenced, and the sound produced through these little vacuities during the breathing may be of various kinds. It may be and it often is a click, like the opening and shutting of a valve; or a chirp; or a creaking; or like many other well known sounds but as all these sounds denote the formation of a vomica, it is best for simplicity sake to call them all by the same name - cavernous respiration."

The vomica may contain pus or some other fluid. In this case we will not meet with this increased bronchial breathing already spoken of as occurring in an empty excavation. The air passing through forms bubbles on the surface of the fluid which in bursting produce the gurgling sound. We cannot

say with absolute certainty that this condition of the lungs is present when this sound is audible, as in some cases we meet with dilated bronchial tubes in which the sound in question is produced; but this condition is so seldom met with that we may generally conclude there is a vomica present when this sound is detected. and that this vomica contains some kind of fluid.

Sometimes the cavity may be so large that we may hear the metallic sound like those met with in cases of pneumothorax.

But besides these modifications of sound heard in a tubercular cavity during respiration the voice also becomes modified and we hear in the part affected when the patient speaks that peculiar tone given by this condition which has received the appellation pectoriloquy. Pectoriloquy however is not an infallible sign of a vomica. When the lungs become solidified by tubercular matter, and the larger bronchial tubes are not destroyed the voice is conveyed through them and from thence brought by the solidified lung to the ear which modifies the natural sound pretty much in the same manner as a cavity in the lungs would do. But the lungs may be solidified by other causes than tubercles, as from hepatization in pneumonia. In

this condition we have also the same physical sign. Therefore it will be seen that we cannot always say our patient can has consumption in any of its grades when this is found. But when we inquire into the history of the patient we may most generally be able to find distinguishing marks from which we can form our diagnosis in either case when pectoriloquy is heard.

Treatment:—

We have now come to the treatment of this disease. In persons whose parents have had the tubercular disease and who are likely to have this diathesis both on account of the knowledge of this disease being hereditary and more especially if conjoined to this they should have the physical conformation which would lead us to suspect a tubercular predisposition the patient should be particularly cautious to avoid all those exciting causes which we have formerly mentioned. Such as exposure to cold, vicious and exhausting indulgences &c. &c. We should also advise (when our advice is desired) a residence in a warm climate, moderate exercise, pure air, unstimulating diet, early rising and warm clothing. We advise a warm climate because in it we are not so apt to meet with those vicissitudes of weather which foster catarrh, bronchitis; pneumonia,

and pleurisy - diseases known to have great influence in calling phthisis into action. These are the means recommended to prevent the disease in patients supposed to have a predisposition to consumption; but when it has commenced its destructive course can it ever be cured? Have we any means of checking its progress by preventing a farther deposition of tubercular matter? It is known that vomicæ when few in the lungs do sometimes contract, their walls come in contact, and no more tubercles being deposited they cicatrize and a recovery in this way is brought about. Dr Wood tells us that "we have abundance of evidence, from dissection that tubercles are capable of undergoing favourable modifications. The probability is that the tubercular matter is absorbed, and sometimes as shown by dissection replaced by calcarious matter and if the dithesis be so far subdued as to prevent the deposition of the tubercles before they have completely run their course, the disease may be said to be cured." But we have no specific remedy by which we are enabled to accomplish these desirable ends. It is by the proper and judicious regulation of diet, regimen. &c &c that we may hope to effect a cure, and we can

never accomplish this under any circumstances except in the first stages of the disease. When the disease is far advanced, large excavations having formed in the lungs and the patient much debilitated and wasted by night sweats and diarrhoea all we dare hope to do, is to give the patient temporary relief, by combating the particular symptoms and smoothe the path to the grave.

This disease can then only be cured in its early stages, that is before the lungs are rapidly becoming disorganized. We should also in these cases advise a change of climate and scenery. We should recommend him if possible to go south, to Cuba or to some parts of South America as Rio, or Bounos Ayres for instance.

Diet:-

The diet of a phthisical patient demands particular attention for he requires support by the mildest and most unstimulating food. While some practitioners have fed their patients to avoid debility others carried their antiphlogistic system too far. It must certainly be improper wholly to forbid animal food yet its kind, and the precautions to be enjoined in its conduct require attention. This plan has been advised." The patient

should rise early, for nothing must debilitate him so much as the perspiration and drowsy slumbers from six to nine, on rising or a little before he should take some thin chocolate, or milk, and in an hour or two a breakfast of tea and biscuit may follow this will be completed probably by nine; and then he is at liberty for three or four hours, which he may employ in taking exercise, taking medicine, light amusements, or easy conversation. His dinner should consist of a single dish of light animal food not prolonged by luxuries or rendered heavy by refinements of cookery. His drink may be water light porter or cider with water. His supper should be slight and consist of fruit if the bowels will bear it, light broth beef tea, sago, tapioca arrow root flavoured by lemon peel or lemon juice rather than wine. Feeding the consumptive patient in this manner gives him support without his receiving any of the injurious effects of more stimulating regimen."

Clothing:—

The clothing should be so regulated as to guard against cold

rather than increase heat. It is usual to direct flannel underneath linen in winter, but in summer this excites too much perspiration, and cotton should then be substituted in its stead. The flannel and cotton should be changed every other day. The feet should be carefully protected.

Exercise:—

In hectic cases riding on horseback or in a carriage, swinging and sailing are chiefly recommended. Riding on horseback is highly recommended by Sydenham and many authors as a remedy of great utility and almost a specific in this disease. But their recommendations have been greatly raised above their real value. We do not find this of any advantage when the disease has disorganized the lungs to a considerable extent: but in the first stages it proves of great benefit by the gentle exercise change of air and scenery which it affords. In diseases of greater debility when the patient becomes much exhausted from the exertion made in riding on horseback the other more gentle modes of exercise should be substituted for it.

We come now to notice the various medicinal means held in the

highest repute for the cure of phthisis pulmonalis.

Blisters:—

Counter irritation has been observed to be of marked benefit in the tubercular disorder, and has appeared in some cases to retard its progress. In every instance of this complaint attended with a fixed pain and straitness about the thorax blisters are of indispensable necessity and they should be applied to the part affected in constant succession so as to keep up a perpetual discharge.

Emetics:—

This class of remedies has been by some practitioners highly recommended. By preventing the exacerbation of fever, and diffusing a genial glow over the surface of the body, as well as to aid in the expectoration of tough phlegm they seem calculated to be of service. For carrying out this indication Ipecacuanha is more manageable and convenient than Tartar emetic, as the latter is apt to pass off by the bowels, and in a disease where diarrhoea is a troublesome symptom this tendency is inconvenient and

dangerous. In cases however in which this symptom is not observed the antimonials may be equal in benefit to Ipecacuanha.

Cathartics:—

This class of medicines is seldom necessary as the internal accumulations in this disease are rarely important or dangerous. In the early stages however they are sometimes useful to procure that equable circulation which is so essential to health. We should recollect in administering these medicines in this disease that in the advanced period we have reason to apprehend diarrhoea, and therefore every medicine of a laxative character should be strictly prohibited.

Expectorants:—

These were once employed through the whole disease though it seems without any correct views. The more stimulating expectorants being in most cases not only useless but absolutely injurious while the mild demulcent only can be of little benefit except for the purpose of shewing the epiglottis.

Demulcents:—

Are always indicated and may be used with great freedom to

relieve the violence of the cough. There is no medicine of this class better adapted to appease the cough and sheath the epiglottis than gum Arabic. It should be held constantly in the mouth. The mucilage of slippery elm bark is also useful for this purpose. But when the cough is urgent and distressing we cannot altogether depend upon this class for alleviating it. We must then resort to opium or some of its preparations as they appear to be the most valuable agents in our possession both for combating this symptom, and also the diarrhoea which so often attends the latter stages of this disease.

Another distressing and weakening symptom is the night sweats. When the Bowels are not preternaturally relaxed the dilute sulphuric acid is the agent of most efficacy in checking them given in doses of twelve to twenty minims three or four times daily. But if we cannot resort to this we must sponge the body at bed time with tepid vinegar and water. The muriated tincture of Iron has been known to check the night sweats when other means have failed. Dr. Watson says "if the bowels are at the same time purged I find the gum kino

powder of the pharmacopœa an admirable medicine."

Iodine especially the iodide of potass has been found to be advantageous in some cases in improving the general health but it has never been known to cure the disease. The cooling neutrals through the whole course of the disease are useful particularly nitre which may be advantageously taken in any period of the complaint in milk of almonds in the quantity of half a drachm to a pint with which a light opiate may be added. The citrate of potassa and other neutrals when there is no season to apprehend a diarrhœa may also be given.

It would be unnecessary for me to enumerate the different so called specifics which have been lauded and thrown forth upon the public, such as digitalis naphtha inhalation of carbonic acid gas &c all of which have been found on trial to be of so little use as not even to be mentioned by authors when treating of this disease.

Such appears to be the mode of managing a patient affected with this most fatal disease, and from the result it would appear a more lethiferous one could not be found among the numerous distempers to which the human frame is subject.

End